

S
658.403
A3itsp
1994

Montana.
Information
Technology
Information
technology
strategic plan for
the state of

STATE OF MONTANA
INFORMATION TECHNOLOGY ADVISORY COUNCIL

STATE DOCUMENTS COLLECTION

DEC 14 1994

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

INFORMATION TECHNOLOGY
STRATEGIC PLAN

JULY 1994

PLEASE RETURN

UTILIZING INFORMATION TECHNOLOGY TO PREPARE FOR
THE 21ST CENTURY

MONTANA STATE LIBRARY

S 658.403 A3itsp 1994 c.1
Information technology strategic plan fo



3 0864 00091501 0

OFFICE OF THE GOVERNOR

STATE OF MONTANA

MARC RACICOT
GOVERNOR



STATE CAPITOL
HELENA, MONTANA 59620-0801

August 18, 1994

To Montana's Information Technology Community:

It is my pleasure to present the 1994 Information Technology Strategic Plan. This plan represents the culmination of efforts by the Information Technology Advisory Council from the past year's strategic planning process.

More than a collection of issues and recommendations, this plan reflects an "enterprise" approach toward developing information technology strategies. It also offers a practical approach for implementation that will prepare us for the latter part of this century and the beginning of the next one.

With the continuing development of national information technology initiatives such as the "information superhighway", it is imperative that state and local governments position themselves to take advantage of these technologies. Only through cooperative efforts like this can we begin to expand these relationships to serve the citizens of the State.

This publication represents only one step in an ongoing strategic planning process. As these strategies are implemented, we will periodically reassess technological developments and the evolving needs of the State.

Sincerely,

A handwritten signature in dark ink, appearing to read "Marc Racicot".

MARC RACICOT
Governor



Digitized by the Internet Archive
in 2016

<https://archive.org/details/informationtechn1994mont>

Information Technology Strategic Plan for the State of Montana

*Information Technology Advisory
Council*

July 1994

Prepared by ITAC & ISD

Contents

WHAT'S INSIDE

Executive Summary	<i>i</i>
Acknowledgements	<i>v</i>
Introduction	1
Access and Privacy Task Force Report	3
Introduction	5
Issue #1: Aggressive Policy	7
Issue #2: Communication and Exchange of Information	11
Issue #3: Mandates	14
Issue #4: Information Technology in Business and Service Delivery ...	16
Issue #5: Code of Fair Information Practices	20
Issue #6: Transmission Privacy Guidelines	23
Issue #7: Access Charges	26
Issue #8: Use of Third Party Providers	29
Issue #9: Availability of Services on the Public Network	32
Issue #10: Vision	34
Coordination Task Force Report	35
Introduction	37
Issue #1: Network Sharing	38
Issue #2: Network Private Sector Access	40
Issue #3: Public Safety Radio Networks	42
Issue #4: Fostering Data Sharing by Coordinating Technology	44
Issue #5: Enterprise Database Directions	47
Issue #6: Local Area Network (LAN) Operating System Directions ...	49
Issue #7: Personal Services	51
Issue #8: Network Coordination	55
Issue #9: Governance: ITAC and the Department of Administration ...	58
Issue #10: Governance: ITAC and ITMG	62

What's Inside

Contents

Funding Task Force Report	65
Introduction	67
Issue #1: Proprietary Fund	68
Issue #2: Data Network Funding	71
Issue #3: Coordination	77
Issue #4: Funding Increase	79
Issue #5: Equal Access	81
Issue #6: Information and Education	85
Issue #7: Budget and Legislative Process	87
 Training Task Force Report	 93
Introduction	95
Issue #1: Training Funding	97
Issue #2: State Employee IT Competency	100
Issue #3: Content & Delivery	102
Issue #4: Agency Support	104
 ITAC Recommendations	 107
Access and Privacy	109
Coordination	115
Funding	121
Training	127
 Appendices	 129
Appendix A: SUMMITNET	131
Appendix B: Privacy and Electronic Communication	133
Appendix C: Data Sharing Resolution	135
Appendix D: Alternative Funding Sources	137
Appendix E: Training Task Force: State Agency Survey	145
Appendix F: Definitions	149
Appendix G: State of Montana ISD/ITAC Strategic Action Plan	151

Executive Summary

INFORMATION TECHNOLOGY STRATEGIC PLAN

Information technology (IT) is an invaluable enterprise resource which can improve communication and service to Montana's citizens; increase staff productivity and measure accountability; promote faster access to current and historical data and serve as an efficient tool for legislators, administrators, and staff in fulfilling their missions and goals.

Because information technology is a dynamic and essential resource, the Information Technology Advisory Council (consisting of agency directors and representatives from the three branches of State Government) devoted a tremendous amount of energy and time during the last year in developing an Information Technology Strategic Plan. The process resulted in ITAC's *identifying and analyzing 31 IT issues which are vital to the State of Montana* for utilizing information technology efficiently and cost-effectively.

These IT issues pertain to four major areas of IT concentration--access and privacy, coordination, funding, and training. Without information access and privacy standards, Montana's citizens will be denied essential information and/or will be denied individual privacy. Without coordination of telecommunications, data processing, and governance, IT will not bring about efficient and cost-effective government. Without appropriate funding, there will not be a sufficient resource base to manage. Without training, information technology will be a resource that is not capitalized.

IT enterprise recommendations were formulated from these primary issues, and these recommendations, along with the issues, discussion, and options, have been incorporated into ITAC's Strategic Plan. As is evident, this IT Strategic Plan is the product of ITAC's dedication to fulfilling its responsibility of advising the Department of Administration on long-term strategic planning for the use of

Information Technology Strategic Plan

Executive Summary

information processing technology in state government.

This Strategic Plan will become a part of the machinery of the State of Montana for utilizing and bringing about improved agency services to Montana's citizens in a difficult financial environment.

Access and Privacy

Incorporated into the recommendations for IT funding and coordination must be the recommendations pertaining to access and privacy. If an enterprise is to be accountable and dependable, it must establish high standards regarding the appropriate, safe, and secure use of technology. The recommendations contained in this ITAC strategic plan promote the adoption of aggressive policies regarding the utilization of current and retrospective information, electronic data superhighways, and electronic transactions. In addition, the state must adopt policies regarding fair information practices and must define agency personnel responsibilities. Perhaps one of the most important recommendations concerning access and privacy is the recommendation that "the State of Montana adopt a vision that is flexible and responsive to citizen needs and demands--a vision that would guide information technology planning and development to take advantage of current and future service delivery and/or access technologies for citizens in their homes, businesses, schools, libraries, and organizations."

Coordination

The coordination recommendations are an extension of promoting cost-effective utilization of state IT resources. These recommendations focus on telecommunications, data processing, and governance (relative roles and responsibilities of various agencies) issues and promote the practice of sharing network facilities, recommend continuing the practice of providing private sector access, encourage the development of a proposal for the design of a consolidated public safety radio network, endorse the concept of data sharing, recommend that the State acquire a single database and LAN operating system for the enterprise, recommend ISD's coordination of interagency networks (voice, data, video, radio), and recommend that ITAC continue to rely on ISD for primary support of ITAC activities.

Funding

Drawing on the recommendations concerning the funding of information technology, the state will continue to utilize the proprietary fund as the primary funding source for IT investment and support. ISD will continue with the current methods of recovering the costs of voice and video network costs with the goal of evolving to the usage of sensitive cost recovery structures as time and technology permits. To promote the most cost-effective utilization of IT, ITAC recommends that a state IT infrastructure plan be developed as time permits; and that the state pursue a coordinated statewide (centralized) infrastructure for IT development and consistency using pooled resources (with ITAC continuing to prioritize, submit, and support statewide IT projects). This initiative would allow for larger investment potential and would make it easier for the Legislature to track enterprise project development and progress. ITAC also recommends that funding mechanisms be developed to allow equal access and availability of IT to every state employee whose job responsibilities require IT resources.

Training

The fourth area of concentration in ITAC's strategic plan relates to staff training. It is obvious that in order for the State of Montana to take advantage of current and advanced information technology, staff must be adequately and continually trained. Training recommendations point out that agency management should recognize and identify the costs of training in any IT acquisition and that the state should provide a greater variety of curriculum and delivery methods by making more computer-based training available to the agencies, taking advantage of MetNet to deliver training, relying on contractors for specialized application specific training, and making a state training facility available that agencies can use to provide training when needed. In addition to appropriate IT staff training, the strategic plan recommends that agencies consider adopting IT staff competency objectives and including long-term training requirements in their IT plans.

As a follow up to this strategic planning effort, an Action Plan has been developed for implementing the recommendations. Each recommendation has one or more actions listed, and each action has a responsible person assignment and anticipated completion date. This Action Plan will be utilized by ITAC to monitor recommendation implementation progress and will insure that ITAC's Strategic Plan becomes operational.

An analysis of the recommendations listed in ITAC's Strategic Plan clearly reveals that the State of Montana is committed to bringing about improved services to the

Executive Summary

public through an *enterprise approach* to IT investments; telecommunications, networking, and data sharing coordination; access and privacy considerations; and training requirements. Furthermore, the cooperation, effort, and consensus on recommendations demonstrated by the members of ITAC promote the realization that agencies respect the reality that they must continue to be a responsive and serviceable government with less staff and funding. Accepting this challenge and realism means the legislators, agencies, and the public must cooperatively work together in sponsoring and utilizing information technology to a degree beyond normal expectations. ITAC's Strategic Plan has built the foundation and direction for the State of Montana to realize these expectations through the utilization of information technology as an indispensable state resource.

Acknowledgements

The Department of Administration would like to thank each of the following ITAC and ITMG agency representatives who participated in the four task forces.

Access and Privacy Task Force:

Bob Person, Executive Director, Legislative Council (Chair)
Mike Billings, Administrator, Department of Social and Rehabilitation Services
Rick Day, Director, Department of Corrections & Human Services
Richard Miller, State Librarian, Montana State Library
Charmaine Murphy, Director, Montana Lottery, Department of Commerce
Bob Robinson, Director, Department of Health & Environmental Sciences
Kathie Otto, State Archivist, Montana Historical Society
David Toppen, Executive Associate Commissioner, Commissioner of Higher Education
Jim Senkler, Programmer/Analyst, Montana State Library (ITMG)
Sharon Gorie, Bureau Chief, Department of Administration (ISD)

Coordination Task Force:

Dennis Taylor, Deputy Director, Department of Justice (Chair)
Judy Browning, Chief of Staff, Governor's Office
Mary Bryson, Deputy Legislative Auditor, Office of the Legislative Auditor
Dave Hunter, Deputy State Auditor, State Auditor
Lois Menzies, Director, Department of Administration
Richard Miller, State Librarian, Montana State Library
Jon Noel, Director, Department of Commerce
Mark Simonich, Director, Department of Natural Resources & Conservation
Judy Simpson, Vice President, Management Information Systems, State Compensation Insurance Fund (ITMG)
Jeff Brandt, Bureau Chief, Department of Administration (ISD)

Acknowledgements

Executive Summary

Funding Task Force:

Mick Robinson, Director, Department of Revenue (Chair)
Steve Bender, Assistant Budget Director, Office of Budget & Program Planning
Pat Chenovick, Administrator, Judiciary
Gregg Groepper, Assistant Superintendent, Office of Public Instruction
Sharon McCabe, Centralized Services Manager, Montana Historical Society
Bill Salisbury, Administrator, Department of Transportation
Clayton Schenk, Legislative Fiscal Analyst, Office of Legislative Fiscal Analyst
John Skufca, Administrator, Department of Livestock
Gary Wulf, Data Processing Manager, Department of Commerce (ITMG)
Sharon Gorie, Bureau Chief, Department of Administration (ISD)

Training Task Force:

Doug Booker, Centralized Service Administrator, Department of Military Affairs (Chair)
Mark Bowlds, Administrator, Department of Labor & Industry
Jack Ellery, Administrator, Department of Family Services
Ralph Peck, Administrator, Department of Agriculture
Randy Mosley, Administrator, Department of State Lands
Bob LaRue, Systems Analyst, Department of Agriculture (ITMG)
Dan Mossman, Information Systems Specialist, Department of Administration (ISD)

Note:

We would also like to acknowledge the efforts of Charles Finn of the Hubert H. Humphrey Institute of Public Affairs at the University of Minnesota who facilitated this strategic planning process.

Introduction

INTRODUCTION

The Information Technology Advisory Council accepted Governor Marc Racicot's 1993 challenge to complete an Information Technology Strategic Planning Process which would result in developing a plan for utilizing information technology to bring about improved, efficient, and cost-effective government services to the people of Montana.

Under Chair, Lois Menzies, ITAC defined the Strategic Planning Process which included the Advisory Council defining *information technology areas* to be studied and analyzed in order to build a solid foundation for long-range IT strategic planning. Areas identified were as follows: IT Access and Privacy, IT Coordination (Telecommunications, Data Processing, and Governance), IT Funding, and IT Training.

An ITAC Task Force was established for each area, and Task Force members were instructed to identify and study IT *issues* relative to their area-issues which needed to be addressed in order to determine the direction and utilization of information technology within state government.

Task Force members finalized a comprehensive analysis of each issue and wrote a report of their findings and recommendations. These reports, following this Introduction, were presented to the ITAC membership, and a vote was taken on each recommendation. Recommendations receiving a consensus vote have been written as objectives or IT strategic goals to be realized through ITAC's Action Plan.

It is evident from the information presented in these task force reports that ITAC and Task Force Members took Governor Racicot's challenge seriously; especially the Governor's comments that "...we can satisfy the expectations of...the people we serve in better fashion if we take advantage of all of the technology available to us, and...we can do it in a way that allows us to move quickly if we can utilize the partnerships that exist within the various groups that are represented in the Information Technology Advisory Council."

Introduction

Access and Privacy Task Force Report

*Information Technology Advisory
Council*

July 1994

Access and Privacy Task Force Report

INTRODUCTION

Montana state government produces, collects, processes, consumes, and disseminates vast amounts of information. Information is among the most valuable assets that state agencies have. Information is used by agency managers and the legislature to establish, operate, and maintain programs. Information is used to produce many of the "products" of state government; in many cases, the information is the product. IT has made it possible for state government to manage information effectively and thus meet the demands of governing today efficiently.

The people of the state can benefit from information made available both by state agencies and by others, including local government agencies, education, libraries, and other not-for-profit institutions, and for-profit organizations. The free flow of information between the government and the public is essential to a democratic society. Correspondingly, laws reflect increasing demands that state government be responsible for providing the public and other governmental entities with access to information an agency may possess that illuminates the operation of government itself, society, and the economy--past, present, and future. Open access to information is a means to ensure the accountability of government, to manage the government's operations, to make decisions, and to determine benefits, and is itself a commodity in the marketplace. Increasing demands for access to information through the use of IT are driven both by the increased availability of the means to accomplish access and the increased understanding on the part of society of government's obligations in this area.

While public disclosure of government information is essential to the operation of a democracy, it is often also necessary for government to obtain information about individuals that should remain private. Management of state government information resources must protect the individual's right to privacy. The Montana Constitution and state laws mandate both access and privacy. A natural tension

Introduction

Access and Privacy Task Force Report

between these principles will always exist and the greatest care must be taken to make decisions that strike the appropriate balance.

Beyond questions related to the information itself are issues regarding access to IT--telecommunication and computing resources. State government is increasing its use of these resources to provide educational services, manage its own affairs, and support policy making. With these changes, the notion of what constitutes "state use" of these resources changes. Constant scrutiny is necessary to assure policies keep up with current realities.

Through the Director of Administration, ITAC charged the Task Force on Access and Privacy to develop options and make recommendations to the ITAC for the provision of public and government access to the state's IT resources, with appropriate recognition and regard for individual privacy.

The charge requested recommendation(s) for strategies for the provision of access to the state's IT infrastructure, including data, with specific attention to networks (voice, data, and video); computing resources; existing statutes, rules, policies, and procedures; and individual rights to privacy. The task force has addressed all of these issues in the report that follows. The task force was unable to specifically address barriers to success, costs and funding considerations and recommendations, or implementation plans. This includes individual agency responsibilities and metrics for measuring effectiveness and ongoing review and update of the strategy. The strategies presented represent some significant changes in focus and some changes in direction that will guide the necessary implementation planning to follow.

Access and Privacy Task Force Report

ISSUE #1: AGGRESSIVE POLICY

Should the state adopt an aggressive policy regarding the use of technology to provide access to services and current and retrospective information?

COMMENTS:

Historically, as a general rule, the state has taken a passive approach to access. Legislative mandate made the Secretary of State's lien information accessible to lending institutions. The Legislative Council adopted public access to bill status and Information Services Division provides a public Bulletin Board as a result of legislative mandate. The state has well-defined mandates limiting the use of telecommunications services. At best, access to information maintained in databases throughout state government has been accomplished as a result of "retro-fit" rather than planning and vision.

Even interagency access has not always been as easy nor as open as desirable. With the possibilities made real by advancing network, security, and database management technologies, agencies are becoming much more aware and eager to share resources. This sharing, internally, will need continuing management support and will likely affect resource benefits and costs, both within an individual agency and on the statewide network.

With the advances in technology, the computer literacy of a significant portion of the population, and burgeoning use of computers in homes and offices, the demand for access will grow. The demand will be driven by other agencies within state government, local governments, other quasi-governmental entities, non-profit organizations, and by the general public.

OPTIONS:

- A. Resolve to take an aggressive policy stance regarding the use of technology to provide access to information and services. An aggressive policy would include:
 - ➡ Management of agency information to promote access to, and dissemination of, that information based on an analysis of the need

Issue 1: Aggressive Policy

Access and Privacy Task Force Report

to know and right to know. Appropriate management includes limitation of the collection and dissemination of information that is not required to directly support the agency mission.

- ➡ Design of information systems to assure access to all information or data except that which is designated as confidential.
- ➡ Design of information systems to accommodate or recognize possibility of "changing" data/information and public use of outdated data/information.
- ➡ Design of information systems to serve the broadest possible audience using appropriate technology from the following: Interactive Voice Response (IVR), Electronic Data Interchange (EDI), Electronic Funds Transfer (EFT), Electronic Benefits Transfer (EBT), debit cards, multi-media kiosks, interactive video conferencing, Bulletin Board Systems (BBS), facsimile transmission (FAX), mainframe computer access, Local Area Network (LAN) access, and the use of alternative media for dissemination--CD-ROM, PC diskette, and magnetic tape.
- ➡ Development of an information locator service identifying electronic and non-electronic records (see Hawaii RRS).
- ➡ Use of libraries and other public or private purveyors as agents for dissemination.
- ➡ Information systems planning including computer and telecommunications capacity planning to meet the required performance standards.
- ➡ Pursuit of x-1-1 telephone number providing access to state government.
- ➡ Use of interactive video for public meetings of interest (legislative hearings, house and senate proceedings, etc).
- ➡ Training and appropriate documentation to support access.
- ➡ Help desk capabilities to assist with access with appropriate staffing and prioritization.

Access and Privacy Task Force Report

- ➡ Promoting available facilities, data, information.
- ➡ Local government participation, both as recipients and providers of data.
- ➡ Interagency projects.
- ➡ Assuring that the public has a process by which to appeal agency decisions regarding release or dissemination of information.

Advantages:

- ➡ Proactive philosophical approach to access that puts the needs of the public served by government at the forefront.
- ➡ Avoidance of unnecessary collection, maintenance, and dissemination costs.
- ➡ Better infrastructure planning and use.
- ➡ Increased opportunity to "reinvent" or "re-engineer" governmental service delivery and capitalize on technological investment to lower the cost of service delivery.
- ➡ Better service to public.
- ➡ Great opportunity for state agencies and IT to tell some good stories about how to serve!
- ➡ Potential to avoid exposure to significant costs later because of lack of good planning, strategies, and/or standards.

Disadvantages:

- ➡ Additional time and effort required to plan and design.
- ➡ Privacy and confidentiality requirements would need to be carefully defined.
- ➡ May require substantial investment that may involve some risk of uncertain benefit/cost considerations.
- ➡ May require coordination to assure consistent application of policy and standards.
- ➡ Greater exposure to security problems (viruses, other destructive actions, misuse of data, etc.)

B. Continue with the current passive practices.

Advantages:

- ➡ Less costly development of new systems, short term.

Access and Privacy Task Force Report

Disadvantages:

- ➡ Costly retro-fits or unplanned, crash programs to meet mandated access.
- ➡ Risk of public outcry at non-responsiveness (ala Hawaii).
- ➡ Risk of privacy or confidentiality disclosures because of poor or deficient definitions.
- ➡ Enormous risk because of autonomy, entrepreneurial approaches, lack of standardization and coordination, and the need in the future to connect and communicate among many disparate parts.

RECOMMENDATIONS:

The state should adopt an aggressive policy regarding the use of technology to provide access to services and current and retrospective information with appropriate regard for budgetary considerations.

Access and Privacy Task Force Report

ISSUE #2: COMMUNICATION AND EXCHANGE OF INFORMATION

How actively should the state participate in and use manifestations of the electronic data superhighway?

COMMENTS:

Internet: The Internet provides a paradigm in the minds of many for the structure of the National Information Infrastructure (NII) under discussion throughout the nation. The university system has participated in Internet for some time, and ISD is currently embarking on a pilot project anticipating offering Internet access as part of its network service.

This pilot includes a provision that allows the State Library to serve as an "Internet server" for associated libraries, opening the possibility for libraries to be an access point and a repository for electronic access and dissemination.

Electronic Mail: The state has established an enterprise electronic mail system which allows exchange of information and communication among state employees using a standard set of products. Agencies such as the State Fund have extensive dealings with service providers who would like to exchange information or communicate with agencies using this system. Technically, the opportunity exists to extend electronic mail service beyond the state enterprise. Mail may represent only one service, but likely an important one that needs to be addressed.

Interactive video: The state has embarked on an aggressive program to provide interactive video to "classroom" or meeting locations throughout the state. In addition to using the facilities for distance learning, these facilities can be used for "town meetings, hearings, etc." as a way to provide citizen access to government officials. In addition, technology now allows desktop interactive video.

Interactive voice: The State will be implementing Interactive Voice Response (IVR) for several applications in the 94-95 biennium. There are numerous other opportunities for state agencies to provide service and information and to respond to the public using this technology.

Issue 2: Communication and Exchange of Information

Access and Privacy Task Force Report

Groupware: Just now, applications known as "groupware" are being developed that offer opportunities to enhance the ability of people to meet electronically to solve problems. Appropriate implementation in state government could allow citizens to attend legislative or rulemaking hearings or other public meetings live and interactively from anywhere in the state. The concept of a "meeting" will take on an entirely new dimension with the application of groupware technology.

METNET: METNET, through the Department of Administration, the Office of Public Instruction, and the University System is a coordinated deployment of telecommunications technologies to provide for distance learning opportunities in Montana. METNET is used primarily for the delivery of classroom instruction and in-service training for teachers, and includes interactive video, computers, data networks, satellite dishes, public telephone networks, and fiber optics.

SUMMITNET: SUMMITNET (State and Universities of Montana Multiprotocol Telecommunications Network) is a data network connecting the six university units and the Department of Transportation. SUMMITNET is ISD's FY96-97 legislative proposal for network expansion. (See Appendix A.)

OPTIONS:

- A. Resolve to participate actively in all opportunities for electronic access.

Advantages:

- ➡ Consistent with aggressive access policy.
- ➡ Opportunity to capitalize on Montana's resources (broad geographic area, low population density) and be competitive.

Disadvantages:

- ➡ Many unknowns about the impact such a policy would have on the network and other IT resources.
- ➡ Exposure to junk mail and time-consuming waste of resources.
- ➡ Greater exposure to privacy and security problems.
- ➡ Unknown financial impact.

- B. Do not participate, or participate very conservatively, when financial impacts can be carefully controlled.

Access and Privacy Task Force Report

Advantages:

- ➡ Short-term cost avoidance.
- ➡ No pain.

Disadvantages:

- ➡ May be too conservative an approach given the explosive expansion of demand for access to the services.
- ➡ Potential for considerable costs due to lack of coordination.
- ➡ Montana could fall further behind in areas where it has competitive potential because of its population density.
- ➡ No gain.

RECOMMENDATIONS:

The state should actively participate in and use manifestations of the electronic data superhighway.

Access and Privacy Task Force Report

ISSUE #3: MANDATES

Should laws and policies governing access, privacy, and data sharing be changed or updated to meet needs of the information age?

COMMENTS:

Issue 3: Mandates

A great number of formal (statutory) and informal policies exist regarding access, dissemination, and use of IT resources. These mandates vary from prohibition of the distribution or sale of mailing lists, to whether seemingly public documents should be provided to the public. Many of these mandates were developed when most records were paper and technology did not encourage access and use by the general public.

In the course of this project, existing mandates regarding access and privacy were gathered. A cursory survey of agency policies and practices regarding privacy indicated a wide disparity in the specificity of the privacy requirement for a particular document and, in some cases, raised questions as to whether there was truly a need.

The Administrative Rules of Montana (ARM) define and discuss regulation of communication facilities, including use. As defined in ARM, use of the state's telecommunication systems is limited to state business, with exceptions for political subdivisions and non-profit organizations that meet certain criteria.

Lack of mandate or clear definition of the legality of electronic documents, both for the state and nationwide, is also a problem. Because of uncertainty and lack of consistency in statute among states, public entities are resisting the use of technology and as a result causing barriers to the access and use of IT.

In view of the growing demand of the public for access and national initiatives that encourage use of technology, it might be in the state's best interest for agencies to review these and any other mandates regarding access to information and to make changes necessary to provide the greatest access while guarding individual privacy, including access anonymity.

Access and Privacy Task Force Report

OPTIONS:

- A. Review all existing mandates to assure the greatest access with appropriate procedures for guarding individual privacy.

Advantages:

- ➡ Agencies would be in a position to appropriately satisfy requests for information or requests to use IT resources.
- ➡ Individual privacy would be protected appropriately.
- ➡ Consistent with, and may be an absolute prerequisite to, an aggressive access policy.

Disadvantages:

- ➡ Time and resource consuming.

- B. Status quo.

Advantages:

- ➡ Avoid the expenditure of resources that will be required to do this review.

Disadvantages:

- ➡ Public dissatisfaction with lack of access due to inappropriately defined information.
- ➡ Failure to act will impede open exchange.

RECOMMENDATIONS:

In order to provide the greatest access, while guarding individual privacy, the state should review and revise all statutes and policies that might be viewed as impediments to access to state IT resources.

Access and Privacy Task Force Report

ISSUE #4: INFORMATION TECHNOLOGY IN BUSINESS AND SERVICE DELIVERY

Should the state pursue use of IT as a means for service delivery, including:

- ➔ *coordinated, integrated access from a variety of convenient locations*
- ➔ *use of electronic transactions (EDI, EFT, EBT)?*

COMMENTS:

Issue 4: Information Technology in Business and Service Delivery

Wider use of electronic IT will change administrative agency structures and traditional administration concepts. Agencies will be able to use electronic IT for adjudication, internal management, rulemaking, and service delivery. The National Performance Review identifies the top seven applications of electronic government as:

- ➔ Integrated Electronic Access to Government Information and Services
- ➔ Integrated Electronic Benefits Transfer
- ➔ National Law Enforcement/Public Safety Network
- ➔ One-Stop Tax Filing
- ➔ International Trade Data System
- ➔ National Environmental Data Index
- ➔ Government-wide Electronic Mail

In adjudication there would be a much more complete and accessible record of all adjudications than with paper processes. Because of the basic similarity of the adjudication process regardless of agency, certain format and software standards would emerge that would make it easier for adjudication records to be transferred among agencies. Electronic management of agency resources would work primarily by relaxing the need for official paper documents to record and

Access and Privacy Task Force Report

communicate instructions and decisions to lower levels of the organization.

Using electronic IT for rulemaking has an even greater potential to change the way in which government operates. Electronic IT greatly facilitates timely public involvement and reduces burdens on agencies affording that involvement. The notice and comment process could be made largely electronic, with notices being posted on electronic bulletin boards and comments being submitted via dial-up telephone links or the Internet. The technology permits a dialogue between regulator and regulatee, reducing the need for communications between the two to occur by means of formal, written documents in the form of petitions, comments, and final rules.

Electronic IT also can be used to streamline some governmental services by transmitting and processing data electronically, in a standardized method. Electronic Funds Transfer (EFT) or Electronic Benefits Transfer (EBT) can be used to issue payments or benefits for subsidy programs, food stamps, payroll, vendor invoices, retirement, and Medicare and Medicaid benefits. Electronic Data Interchange (EDI) has been used for many years in the private sector to streamline conventional purchase order, invoice, and transportation processing using a format for exchange and processing that is agreed upon among business partners. Some large companies have adopted EDI to the extent that it is required in order to do business with them. More recently, the State (Department of Labor, Employment Relations Division) is currently participating in a national effort to design EDI standards for the submission of transactions by the nation's providers of Workers' Compensation reporting requirements.

The Department of Labor is completing a pilot project in which job applicants are able to search job listings. This service has been delivered using multi-media technology (touch screen, video, voice) packaged in a "KIOSK". These KIOSKS, aside from being located in Job Service offices throughout the state, will be located in a variety of public places: shopping centers, grocery stores, senior citizen centers, and county court houses.

Other agencies are also considering using this technology. Opportunities include the provision of general government information, tourism information, benefits issuance when using EBT, driver's licenses renewal, automobile registration, hunting and fishing licenses, payment of fines and license fees. Coordination of use of the technology, ongoing support of the equipment, multi-agency use should be considered to best use the resources required to deliver services in this way.

Access and Privacy Task Force Report

Agencies should expect that they will lose control of their data after dissemination to end users or third party services and that they cannot place limits on how the data will be used. While agencies are therefore no longer responsible for the information marketed by others, they need to be alert to misleading or inaccurate claims for data obtained from the government.

OPTIONS:

- A. Recommend that all state agencies pursue use of IT as a means for service delivery.

Advantages:

- ➡ Approach that would benefit agencies and those outside of state government.
- ➡ Development costs would be reduced.
- ➡ Maximum advantage could be attained as the state begins to consolidate the source of services on electronic systems.

Disadvantages:

- ➡ More issues need to be considered which may make development more difficult and may slow specific implementations.

- B. Combine resources among agencies when delivering services directly to the public when sharing of resources is cost beneficial and a convenience for the public.

Advantages:

- ➡ Sharing resources among agencies, programs.
- ➡ "One-Stop Shopping" - the public could ask a variety of questions of a variety of agencies by stopping at one, convenient, easy-to-use device.
- ➡ Access, directions, and look would all be the same because of consistency of application.
- ➡ This development is consistent with current national government initiatives as well as those in other state and local governments, thus concurring with a direction more and more citizens will find familiar and which they will take for granted.

Access and Privacy Task Force Report

Disadvantages:

- ➡ Funding becomes more complex and controversial.
- ➡ Potential loss of "ownership" and commitment to quality.

RECOMMENDATIONS:

The state should pursue the use of IT as a means for service delivery including:

- ➡ *use of electronic transactions (EDI, EFT, EBT).*
- ➡ *coordinated, integrated access from a variety of convenient locations.*

Access and Privacy Task Force Report

ISSUE #5: CODE OF FAIR INFORMATION PRACTICES

Should the state adopt a policy regarding fair information practices?

COMMENTS:

Issue 5: Code of Fair Information Practices

What each of us believes to be our privacy is a widely varying confluence of personal beliefs and group norms. Alan F. Westin has written that "privacy is not simply an absence of information about us in the minds of others, rather it is the control we have over information about ourselves." The Montana Constitution recognizes that "the right of individual privacy is essential to the well-being of a free society" and insures that privacy "shall not be infringed without the showing of a compelling state interest."

Most of the advocates of data privacy, especially those people who laid the foundations of this policy debate in the early 1970's, used the term "data privacy" to describe a new species of due process rights that should be established to deal with the implications of our society's greatly increased collection of personal information. "Data privacy" today is used as a shorthand term to describe what is actually called the "Code of Fair Information Practices," or FIP principles.

This code was first articulated in a 1973 federal report entitled "Records, Computers, and the Rights of Citizens." The report was prepared by a committee of citizens, computer professionals, government employees, and legal experts to advise the Department of Health, Education, and Welfare about safeguards that should be put in place to deal with the effect of information collection on individuals. The report included five principles, which have become known as the Code of Fair Information Practices principles:

- ➡ (1) Stop Data Misuse - Personal information, already considered private and confidential, obtained for one purpose should not be used for another purpose without having informed the subject.
- ➡ (2) Encourage Data Minimization - Only information necessary for a particular purpose should be collected and personally identifiable information should be disposed of where possible.

Access and Privacy Task Force Report

- ➡ (3) Promote Data Integrity - Ensure the accuracy, reliability, completeness, and timeliness of personal information; any organization creating, maintaining, using, or disseminating records of identifiable personal data must assure the reliability of the data for their intended use and must take reasonable precautions to prevent misuse of the data.
- ➡ (4) Allow Data Inspection - Notify record subjects about record-keeping practices and data use and allow individuals to inspect, amend, and correct personal information; no secret record-keeping systems should exist.
- ➡ (5) Establish Privacy Policies - Establish and enforce a publicly available information privacy policy; persons must be able to find out what information about them is in a record and how it is used, and how it is protected.

OPTIONS:

A. Avoid Adopting a Code of Fair Information Practices.

Advantages:

- ➡ Rely solely on existing Freedom of Information and Privacy mandates.

Disadvantages:

- ➡ Absence of resolution or mandate to manage the gathering of information.

B. Adopt a Code of Fair Information Practices.

Advantages:

- ➡ Potential for raising public entity consciousness of responsibilities regarding information about an individual.

Disadvantages:

- ➡ Requires an institution collecting information from individuals to give notice explaining what uses will be made of the data, who will have access, and other facts about the data.
- ➡ Once public access occurs, the public can make any use of the data.
- ➡ Potentially discourages data sharing among agencies.

Access and Privacy Task Force Report

- ➡ Secondary use principle effects on the research use of public information when the data has been transferred to an archive.

RECOMMENDATIONS:

The state should adopt a policy regarding fair information practices, clearly stating information privacy policies and practices.

Access and Privacy Task Force Report

ISSUE #6: TRANSMISSION PRIVACY GUIDELINES

Should the state adopt a policy defining state agency personnel responsibilities regarding communications privacy and the access and use of information that might be intercepted in the course of performing IT work?

COMMENTS:

Increasing use of state systems for communications of all sorts and increasing access to those systems by more and more people in and out of state government implies an increasing risk of inadvertent access to appropriately confidential material. State and federal statutes and state policies governing access provide a strong underpinning to guarantee an appropriate level of privacy when electronic communications are used. The state has been fortunate to have had highly dedicated and competent staff who have endeavored to provide secure systems. But as the level of communication and access increases, so does the risk of improper disclosure or misunderstanding. Both the users of the systems and those who supply the systems need a common understanding of the level of confidentiality afforded electronic communications on the state system and the sorts of third party access that might be expected and appropriate. Failure to address the issue could reduce the level of faith in the system or result in inadvertent violations of the law, or both.

The following is an example of a statement that could be considered:

Communications privacy is a serious matter. Violations of privacy are prohibited by section 45-8-213, MCA, and the Federal Electronic Communications Privacy Act including 18 USC Sec. 2511. Criminal sanctions may apply for violating the provisions of these laws. The State of Montana increasingly is serving as a provider of electronic communications services over the state telecommunications network and integrated local area networks. Communications services may be provided both to state employees and others over these networks. Because state agency personnel who serve as system administrators and technicians may from time to time intercept electronic communications incident to their duties in the normal course of operating the service, it is necessary to establish clear policies governing access and use of information intercepted.

Issue 6: Transmission Privacy Guidelines

Access and Privacy Task Force Report

An employee, agent, or contractor of the state of Montana may intercept, disclose, or use an electronic communication carried or stored on the state telecommunications network or state operated local area networks in the normal course of that person's employment while engaged in any activity that is necessary incident to providing the state's electronic communication service or protecting the rights and property of the state of Montana.

No employee, agent, or contractor of the state of Montana may use service observing, random monitoring, or otherwise intercept electronic information on the state telecommunications network except for the purpose of conducting mechanical or service quality control checks including the maintenance of service quality and system security and software license monitoring.

No employee, agent, or contractor of the state of Montana may intentionally disclose information intercepted on or from an electronic communication system except to the person for whom it is intended, to a person reasonably involved in process of transmitting the information to the person for whom it is intended, or to another person lawfully entitled to it.

No employee, agent, or contractor of the state of Montana may use information intercepted on or from an electronic communication system for any purpose other than supporting and maintaining the communication service or other lawful purposes.

An employee, agent, or contractor of the state of Montana may disclose relevant information pursuant to a proper warrant issued by a court or other proper authority.

A draft statement to be considered for incorporation as part of the sign on or access procedures for all IT systems appears as Appendix B, Privacy and Electronic Communication.

OPTIONS:

- A. The Department of Administration, in cooperation with state agencies through ITAC, should develop a policy regarding access and use of information intercepted in the process of carrying out telecommunications services.

Access and Privacy Task Force Report

Advantages:

- ➡ The Department of Administration is at base responsible for network services and adoption of clear policies would be definitive direction for a consistent state policy in this area.
- ➡ Clear standards would remove uncertainty for government employees regarding their responsibilities regarding the privacy of information being carried or stored using IT.

Disadvantages:

- ➡ Difficulty in establishing a policy that will apply properly in every case.

- B. The Department of Administration could adopt a policy encouraging all departments to adopt a policy for transmission privacy similar to the above as applicable to the particular situation such as is the case in affirmative action and other personnel activities.

Advantages:

- ➡ The policy then could be tailored to meet any special requirements of a particular system or part of a system.

Disadvantages:

- ➡ Users across all of state government would not have a sense of one state policy applying uniformly to all transmissions all the time.

RECOMMENDATIONS:

The state, through the Department of Administration and cooperating state agencies, should adopt a policy defining state agency personnel responsibilities regarding communications privacy and the access and use of information that might be intercepted in the course of performing IT services.

Access and Privacy Task Force Report

ISSUE #7: ACCESS CHARGES

Should the state charge for access?

COMMENTS:

Issue 7: Access Charges

The issue today seems to be one of whether the taxpayer (who has already paid taxes which support the provision of the technology) should be asked to pay again for specific access. The availability of electronic services is growing rapidly while those who cannot afford access are in danger of becoming disenfranchised.

State government currently uses a variety of options to cover the cost of providing access. Examples are:

- ➡ \$200 subscription fee for unlimited (dial-up) access to the Bill Status system.
- ➡ \$25 access fee to the Secretary of State's lien information by financial institutions.
- ➡ Free access (including 800 number) to the state BBS, which is cost recovered in the network assessment fee charged for each state network attachment.
- ➡ Mainframe (interagency) access billed to agencies based on resource utilization.
- ➡ Purchasing documents are disseminated, on request, to the public at \$.25 per page.
- ➡ Hotlines for a variety of programs (Road Report, Infectious Diseases, etc.) are considered program costs.
- ➡ KIOSKS for the Job Service were initially funded through a federal grant, but the ongoing support and maintenance will be considered the cost of providing this service to the public.
- ➡ The Division of Motor Vehicles provides automobile registration information to a variety of sources. In the past, a third party firm has

Access and Privacy Task Force Report

provided the automobile registration mailing in exchange for use of that mailing as a direct mail advertising campaign.

- ➡ The costs of telephone special services, such as 9-1-1 and TDD, are recovered by a flat fee added to all basic telephone services.
- ➡ Other entities (state of Massachusetts, local government, etc.), through fees for on-line access to imaging and data files for property records pay for the entire operation.

OPTIONS:

- A. Recover the costs for dissemination by charging a fee to the requesting party using documented cost recovery formula (personnel costs, supplies and materials costs, administrative costs).

Advantages:

- ➡ Program budget stable.
- ➡ Simple.

Disadvantages:

- ➡ Public perception.
- ➡ Possible barrier to entities or individuals who cannot afford to pay.

- B. Provide service as part of program operation and budget.

Advantages:

- ➡ Better public perception.
- ➡ Access is equitable, all can be served regardless of financial status.

Disadvantages:

- ➡ Difficult to forecast demand and associated cost.

- C. Connect time assessment charge.

Access and Privacy Task Force Report

Advantages:

- ➔ For on-line services, more consistent with better public perception.
- ➔ Possible impediment to entities or individuals who cannot afford to pay.

Disadvantages:

- ➔ Difficult to forecast demand and associated cost.
- ➔ Possible barrier to entities or individuals who cannot afford to pay.

- D. Develop policy guidelines to establish either free access or access with a service charge. Criteria would include whether the access provided is an inherent part of the general mission of the organization or whether the access is for the private benefit of the person requesting it, along with the degree to which the public and private good involved can be distinguished.

Advantages:

- ➔ The specific charges would be reasonable in relation to the good.
- ➔ State government could ration access to a reasonable level, saving the general taxpayer from incurring costs for aggressive hobbyists or other nontypical users.
- ➔ General fund costs could more easily be contained.

Disadvantages:

- ➔ In some cases, the decision on whether and how much to charge could be debated, requiring rulemaking hearings and consuming time.
- ➔ Some members of the public might take umbrage if implementations are not carefully pursued.
- ➔ Possible barrier to entities or individuals who cannot afford to pay.

RECOMMENDATIONS:

Develop policy guidelines to establish either free access or access with a service charge. Criteria would include whether the access provided is an inherent part of the general mission of the organization or whether the access is for the private benefit of the person requesting it, along with the degree to which the public and private good involved can be distinguished.

Access and Privacy Task Force Report

ISSUE #8: USE OF THIRD PARTY PROVIDERS

Should the state use third party information services for access to services? What are the privacy and revenue issues that need to be addressed in using third party providers (to provide access, service, outsourcing, etc.)

COMMENTS:

The question of third party providers of information is fairly complex. In one sense, the American system of government absolutely demands the existence of a healthy, active community of third party information providers--the press--to inform the public about its government and disseminate information for which government has been the source. On the other hand, government often has responded to public demand to provide information directly, whether or not third party providers may do the same thing. For example the state of Montana publishes and distributes at no cost a state highway map even though maps can be bought readily from other sources. The issue becomes controversial when government attempts to limit the role of third parties either by not making information available, by limiting outside use of public information through efforts at establishing copyright restrictions, or by establishing exclusive relationships with outside "value-added" information vendors. This last area has been particularly troublesome at the national level in relation to the use of IT.

Often, information is gathered and stored in electronic databases that are technically complex. The public may have a perfect right to gain access to that information. But the need may be to have it presented in a format not used by the government for its purposes. The public demand, legitimate as it may be, because of the way government activities are funded, may not be one that an agency can afford to honor--even when private parties may be willing to pay enough to cover the costs. The solution sometimes arrived at is to make the data available to a third party vendor which can invest the resources to manipulate the data and resell the information packaged in useful ways to the public. To support the arrangement, the vendor may succeed in signing a contract excluding others from that right. From that sort of exclusivity arises controversy.

The press and other publishers, whether operating in the traditional realms or in the newer realm of electronic publishing, offer the state and the public an important

Issue 8: Use of Third Party Providers

Access and Privacy Task Force Report

service in expanding the dissemination of information made available by and about government. The relationships should be fostered, open, and nonexclusive.

OPTIONS:

- A. Recognize the important traditional role of third party information providers and embrace appropriate implementations of those relationships in the electronic information age.

Advantages:

- A realistic approach will foster information dissemination with a minimum of difficulty and cost.

Disadvantages:

- Control of data is out of the hands of state government.
- Concern about costs of this "resold" information.

- B. Allow use of state data but control the cost of products to ensure equitable distribution of the data through a competitive process which requires third parties to provide the following information: 1) How much they intend to charge for their information products; and 2) How they intend to make these materials available.

Advantages:

- The state enables availability of information without the cost of producing it itself.
- Greater distribution of such data than if only the state produced it.
- There may be "value added" to the information third parties.
- Ensures that this information is widely available for all.

Disadvantages:

- State gets into the regulatory business somewhat.
- Potential for bureaucracy.
- Stifle creativity on the part of third parties in how this information is used.
- Difficult to decide which information should be controlled and which should be just made available.
- Does this move away from the relationships described above as "fostered, open, and nonexclusive"?

Access and Privacy Task Force Report

RECOMMENDATIONS:

Recognize the important traditional role of third party information and service providers and embrace appropriate, nonexclusive implementations of those relationships in the electronic information age.

Access and Privacy Task Force Report

ISSUE #9: AVAILABILITY OF SERVICES ON THE PUBLIC NETWORK

Should state government take a proactive stand regarding the deployment of high capacity switched data transport capability on the public switched communications network in Montana?

COMMENTS:

Issue 9: Availability of Services on the Public Network

One of the issues in the development of the national information superhighway that remains troublesome is how to penetrate deeply into the communications infrastructure with public high capacity data circuits. Public circuits are those circuits provided by telecommunications carriers such as U.S. West and cooperatives for fee use by the public. Sometimes this is referred to as "the last mile" problem when connecting to a house or business that cannot afford a dedicated line with ISDN (Integrated Services Digital Network) or other high capacity service. In Montana, "the last mile" can be a pretty long mile and is as likely to affect a state office or county seat just as readily as it does a home or private business. As the state begins to deploy more capable data services on its networks, the need to transport large amounts of data will become more and more critical. Already, the deployment of video conferencing capability has been somewhat limited by the pattern of deployment of high capacity data transmission links. Future state government demand is likely to dwarf the present demand. The state simply cannot plan to rely upon securing dedicated lines everywhere they need to go nor rely upon the hope that other demand will take care of the problem. In addition, Montana is experiencing significant growth in employment based upon the ability of its residents to conduct business using the communications network. Failure to take an active stance in working with the communications industry on this important issue leaves the state silent on a matter of significant strategic, cost, and vital economic development interests.

OPTIONS:

- A. Adopt a policy of actively working with communications industry providers and regulators to clearly identify state government needs and directions regarding the availability of public switched high capacity data services throughout the state of Montana.

Access and Privacy Task Force Report

Advantages:

- The state's needs will be available to the industry as deployment decisions are made.
- As communication capability improves, making all locations more accessible with less expensive solutions, today's operational costs can be invested in new technology.
- Less potential for impediments to access because of overburdened infrastructure.

Disadvantages:

- A new difficult dimension of planning and involvement is added at a time when just keeping up with last years' work is overwhelming.

RECOMMENDATIONS:

State government should take a proactive stand regarding the deployment of high capacity switched data transport capability on the public communications network in Montana.

Access and Privacy Task Force Report

ISSUE #10: VISION

Should the state adopt a vision that would direct IT planning and development to consider future delivery and/or access for citizens in their homes, businesses, schools, libraries, and organizations?

COMMENTS:

Here we embrace the National Information Infrastructure (NII) and advocate building programs based on these new technologies.

OPTIONS:

- A. Adopt a vision that includes programs designed based on technology, a vision of delivery of service and information to the public in a manner that is convenient to them, and a vision of cooperation and standardization among agencies with the least amount of waste because of incompatibility or inconsistency.

Advantages:

- ➡ Alfred North Whitehead: "Man's reach should exceed his grasp."

Disadvantages:

- ➡ "If you don't know where you're going, you'll always get there."

RECOMMENDATIONS:

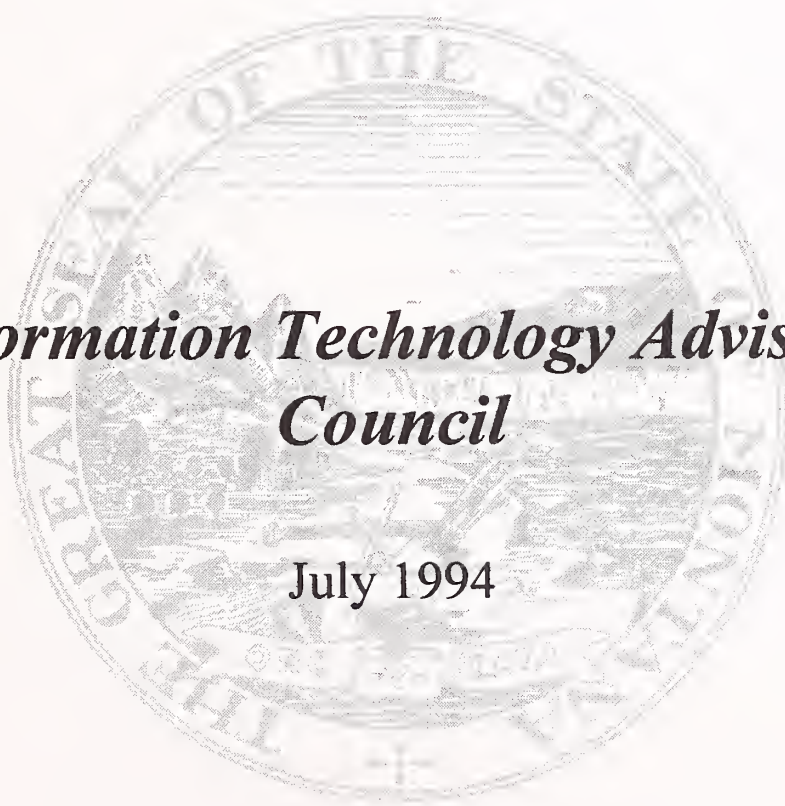
The state should adopt a vision that is flexible and responsive to citizen needs and demands--a vision that would guide information technology planning and development to take advantage of current and future service delivery and/or access technologies for citizens in their homes, businesses, schools, libraries, and organizations.

Issue 10: Vision

Coordination Task Force Report

*Information Technology Advisory
Council*

July 1994



Coordination Task Force Report

INTRODUCTION

The purpose of this summary is to assist the ITAC Coordination Task Force in identifying and describing issues and developing possible recommendations for further consideration.

Issues that may have relevance to other task forces will be first developed by the coordination task force to the extent that coordination relates to the issue in question. The task force may then determine that it is appropriate to refer the issue to another task force.

The ITAC Coordination Task Force is responsible for developing issues and recommendations in three general areas:

- ➡ Telecommunications - This area focuses on telecommunications issues, including local and long distance telephone services, video, data network, and public safety radio.
- ➡ Data Processing - This area focuses on the general topic of "data" issues, including data sharing, database, local area networks, and technical support.
- ➡ Governance - This area addresses the relative roles and responsibilities of the various agencies in managing telecommunications and data processing in state government.

Introduction

Coordination Task Force Report

ISSUE #1: NETWORK SHARING

Should the state continue with a shared network concept or allow multiple networks?

COMMENTS:

Issue I: Network Sharing

Montana, like most states and businesses, has developed networks based on the notion of sharing. That is, telecommunications technology allows for many uses to take place across single circuits; therefore, efforts have been directed at developing and managing a shared network which all agencies can use. This model extends to all major locations and carries voice, data, and video (and even some radio) intercity signals for all state agencies, including universities.

The voice network begins at employee telephones and extends to interstate and international calling. Coordination has been provided centrally in ISD.

The data network begins at the communications board in an employee's PC (or terminal) and extends to the state's data network(s) that are installed throughout the state. Soon a connection will be added to the Helena backbone which will provide access to the INTERNET, which will significantly expand data communications capabilities nationally and internationally.

Products which reside on agency PC's and require communications must be compatible with the state's data network standards. Standards on hardware and software on the network are tightly controlled to include LAN standards. Coordination has been provided centrally, with input from agency personnel through ITMG and ITAC on product choices.

The video network begins at state-owned studio facilities and interconnects to other state-owned studio facilities. Seven sites currently have video capabilities (Helena, Bozeman, Billings, Great Falls, Miles City, Missoula, and Kalispell). There is also an interstate connection to U.S. Sprint's network, and ISD is currently researching a connection to AT&T's network. The potential exists for interconnection with other systems that are growing both within and outside of Montana. Again, coordination has been provided centrally by ISD. SUMMITNET is ISD's FY96-97 legislative proposal for network expansion. (See Appendix A.)

Coordination Task Force Report

OPTIONS:

- A. ITAC can affirm the current practice of sharing network facilities.
- B. ITAC can recommend that ISD relinquish control over aspects of the network as it proves feasible and cost effective.
- C. ITAC can recommend that the state abandon the shared network approach.

Shared Network Advantages:

- Cost economies of scale at the enterprise level.
- Technical complexities are reduced.
- Greater potential for common access by the public.
- Consistent with current legislative direction.
- Less state staff required to support a shared network.

Shared Network Disadvantages:

- Agency choices may be limited in terms of products.
- Agencies may not be able to react as quickly to their own needs.

RECOMMENDATIONS:

ISD should continue with the current practice of sharing network facilities, with ISD regularly assessing the overall cost effectiveness of providing a shared network for the enterprise.

Coordination Task Force Report

ISSUE #2: NETWORK PRIVATE SECTOR ACCESS

What private sector access to the State's telecommunications networks should be provided?

COMMENTS:

Issue 2: Network Private Sector Access

The network now provides private sector access to the state's information resource on a limited, case-by-case basis. There is no high-level policy or strategy to promote greater access through expanded network facilities. There is no enterprise model or approach for making the information available or providing for direct, electronic filing of information required by state agencies. Expanded network facilities and capacity could provide additional services by providing additional connections with private companies (i.e., insurance companies for access to state auditor data, car dealers for licensing, and sporting goods stores for sportsman registrations, to name a few potential uses).

There are a variety of laws providing for distribution of public information, including specific restrictions on charging for the information. These laws have resulted from case-by-case information dissemination needs in individual agencies rather than a comprehensive approach to receiving or distributing information with businesses or the general public.

Cost recovery is an issue that will get greater attention as increased access is provided. Nationally, state and local governments are increasingly selling data in some form. The rationale is that data is a source of revenue that should be sold in order to recover the costs of maintaining the information and to avoid subsidizing private sector ventures that re-sell data obtained from the state.

Developing a method of charging for information provides a means of distributing costs directly to those that benefit from the information. It would also help finance the cost of upgrades to the network infrastructure which are in part brought about by increasing private sector demands for greater access to the state's network. Others would argue that the taxpayers have already paid for the information and should not be charged a second time for the information.

Direct access via expanded network connections may also have the benefit of shifting costs away from a state agency to those businesses or constituencies that

Coordination Task Force Report

are required to provide the information. For example, providing an option of allowing direct, electronic submission of information may reduce the data capture costs within the agency (data entry, etc.).

OPTIONS:

- A. ITAC could affirm ISD's current practice of providing private sector access on a case-by-case basis, based on needs identified by agency program managers.
- B. ITAC could recommend that ITAC and ISD undertake an initiative prior to the next legislative session to 1) develop greater network capacity to handle increased private sector access, and 2) actively promote the use of telecommunications networks to provide greater private sector access to agency program management.
- C. This issue could be referred to ITAC's Funding Task Force for additional review after developing recommendations that address coordination.

RECOMMENDATIONS:

ISD should continue with the current practice of providing private sector access on a case-by-case basis, based on needs identified by agency program managers.

ITAC and ISD should develop a proposal for a design to be presented to the next legislative session to develop greater network capacity to handle increased private sector access.

Coordination Task Force Report

ISSUE #3: PUBLIC SAFETY RADIO NETWORKS

Should the state study the feasibility of consolidating public safety radio networks which are today managed separately by the Departments of Justice, Transportation, and State Lands?

COMMENTS:

Issue 3: Public Safety Radio Networks

Today, three separate radio networks exist and are separately managed. Additionally, local government public safety organizations also manage their own radio systems separate from the state systems. Often the equipment used is installed in the same physical proximity (typically on a hilltop) yet is managed under separate maintenance arrangements. These systems use the same area of the frequency spectrum known as "High Band". The high band spectrum is under review today by the FCC and is predicted to be realigned for other uses, thus requiring changes in these state and local systems at very high costs. Further, new technologies are available today and will continue to develop. These new technologies will improve the capabilities of these systems, enabling increased interagency access and allowing for cost sharing.

OPTIONS:

- A. ITAC could recommend that the affected state agencies join with ISD to assess how Montana should evolve these state and local systems to derive maximum benefit from the regulatory and technological changes now underway.
- B. ITAC could solicit the ideas and advice of local government organizations such as MACO and the League of Cities and Towns before including local agencies in the study.
- C. ITAC could recommend that a plan be prepared and presented to ITAC which would ultimately be presented to the governor and the 1995 legislature.

Coordination Task Force Report

RECOMMENDATIONS:

The Departments of Justice, Transportation, and State Lands should join with ISD to assess how these state and local systems should evolve to derive maximum benefit from the regulatory and technological changes now underway.

ITAC and ISD should develop a proposal for the design of a consolidated public safety radio network to be presented to the next legislative session.

The Departments of Justice, Transportation, State Lands, other affected agencies, and ISD should solicit the ideas and advice of local government organizations such as MACO and the League of Cities and Towns in order to determine if local agencies should be included in the design.

Coordination Task Force Report

ISSUE #4: FOSTERING DATA SHARING BY COORDINATING TECHNOLOGY

How does the state best coordinate technology purchases and designs to enhance data sharing in the enterprise and thereby eliminate potential technological inhibitors?

COMMENTS:

Issue 4: Fostering Data Sharing by Coordinating Technology

Montana, like many states and businesses, has made significant investments in automation in a large number of operating environments, including mainframes, mid-range computers, and PC's. Initially, most investment was made in mainframe equipment and software and application systems, with a moderate amount of mid-range computers. More recently, large investments have been made in PC's and the software typically used on PC's, including wordprocessing, spreadsheets, and other office automation tools. A rough estimate of the numbers of mainframes, mid-range, and PC's is one large mainframe operated by ISD, approximately 25 mid-range computers, typically operated in support of specific agency programs, and over 6,000 PC's installed throughout state government.

Generally speaking, agencies working independently of each other will acquire hardware and software that will not always be able to communicate with each other, or share data. With only one mainframe, mainframe hardware use throughout state government is standardized. Mainframe software is also standardized although there have been past initiatives to install more than one vendor's product of the same type of software on the mainframe, database software being one example. There are several different mid-range computers, with different software environments in the state. PC hardware acquisitions are based almost entirely on the "IBM DOS standard" using ISD's term contracts, but there are many differences in the types of software that agencies purchase, including database software. Wordprocessing and spreadsheets are two examples of software that the state has been able to standardize.

Historically, data sharing opportunities were assessed and undertaken on a case-by-case basis. More recently, three agencies were cited by the Office of the Legislative Auditor for not addressing data sharing in their internal IT methodologies. In August, 1992, a Data Sharing Resolution was adopted by the ITMG "with the purpose of ensuring that agencies acquire and use hardware and software that

Coordination Task Force Report

enable data to be shared among agencies". In November, 1992, the ITAC adopted the same resolution (see Appendix C).

HB99 was passed by the last legislature which clarified 2-17-501, MCA by adding software to the responsibilities the Department of Administration has for reviewing and approving agency data processing acquisitions. Recent ITMG and ITAC initiatives specify greater standardization for software, including database software (Oracle) and LAN operating system software (Netware).

A distinction must be made between "sharing" data and "centralizing" data. When information is shared, the data continues to be managed by the appropriate agency but is made available when appropriate for other uses. Centralizing data places all or most data under the central control of an organizational entity charged with the responsibility of meeting the data needs of all agencies. The intent of the recent data sharing initiatives were to promote the sharing of data, not the centralization of data under the control of a data "czar".

OPTIONS:

- A. ITAC can reaffirm previous ITMG and ITAC efforts, endorsing in concept the importance of coordinating technology, including the concept of data sharing as currently reflected in the data sharing resolution adopted at the 11/5/92 DPAC meeting.
- B. ITAC can recommend that ISD include the data sharing resolution as part of the specifications used in future efforts to establish policies and procedures used to carry out ISD's responsibilities as specified by 2-17-501, MCA.
- C. ITAC can recommend that the state abandon the current efforts with regard to coordinating technology, including data sharing.
- D. ITAC could recommend that the state establish a central point for coordinating technology.

Coordinating Technology Advantages:

- ➡ Potential for cost savings due to consolidated purchasing, and reduced costs to convert and transfer data.
- ➡ Technical complexities are reduced.
- ➡ Fewer hardware and software incompatibilities.
- ➡ Greater potential for simplified access by the public.
- ➡ Consistent with current legislative direction.

Coordination Task Force Report

- ➔ Benefits derived from a state staff with the same technical training.

Coordinating Technology Disadvantages:

- ➔ Reduced agency autonomy.
- ➔ Agency choices may be limited in terms of solutions (alternative systems).
- ➔ Agencies may not be able to react as quickly to their needs.

RECOMMENDATIONS:

ITAC should reaffirm previous ITMG and ITAC efforts, endorsing in concept the importance of coordinating technology, including the concept of data sharing as stated in the Data Sharing Resolution.

ISD should include the Data Sharing Resolution as part of the specifications used in future efforts to establish policies and procedures used to carry out ISD's responsibilities as specified by 2-17-501, MCA.

Coordination Task Force Report

ISSUE #5: ENTERPRISE DATABASE DIRECTIONS

How should the state proceed with future acquisitions of database software? Should ITAC endorse the enterprise "database directions" recommendation made by ITMG?

COMMENTS:

The state relies primarily on database software for the bulk of its automated systems. On the mainframe, IDMS/R is the only database, or database management system (DBMS) installed. On mid-range computers, there are at least three different DBMS's installed. The greatest proliferation of DBMS's has occurred on the PC platform where at least 20 different vendors' DBMS's are in use. This large number of different DBMS's has resulted from agencies enjoying the greatest degree of flexibility possible but raised questions about the ability to share data and technical expertise throughout state government.

In April, 1992, the ITMG established a subcommittee to determine "future plans for the use of database software by the state". In April, 1993, the ITMG approved a document entitled "Database Directions Standards and Recommendations" which called for software acquisition strategies based on standards that would promote the stated goal of data sharing. In addition, it specified that "State agencies should adhere to a policy of using standard database software supported by ISD" and "the use of a single or limited number of software packages should be adopted."

In May, 1993, the ITMG appointed a task force to select a database that would become the state standard. In January, 1994, the ITMG endorsed the current status of the group's efforts which had tentatively selected the Oracle database. A motion was passed that endorsed an enterprise (or single, statewide) solution for a DBMS. Efforts then shifted to contract negotiations which are currently ongoing between Oracle and ISD.

Given the state's large investment in IT, the actual implementation of the data sharing resolution will result from a long term transition that recognizes the budget and personnel resources required in order for significant changes to occur. ISD may need to consider "compelling business case" exceptions to forthcoming acquisition procedures as a result of federal mandates, "free" systems from other states, and other specific cases.

Issue 5: Enterprise Database Directions

Coordination Task Force Report

OPTIONS:

- A. ITAC could endorse the current direction being taken by ITMG to acquire a single database that would be implemented as an enterprise solution.
- B. ITAC could recommend that ITMG and ISD reassess the current emphasis on an enterprise solution.

Advantages of an Enterprise Database Direction:

- Consistent with the stated goal of data sharing.
- Enterprise (single, statewide) solution.
- Total costs of administration are reduced.
- Potential for cost savings due to consolidated purchasing, and reduced costs to convert and transfer data.
- Technical complexities are reduced.
- Fewer software incompatibilities.
- Consistent with current legislative direction.
- Benefits derived from a state staff with the same technical training.

Disadvantages of an Enterprise Database Direction:

- Reduced agency autonomy.
- Agency choices may be limited in terms of solutions (alternative systems).
- Conflicts with federal and other data sharing dictates and desires.

RECOMMENDATIONS:

ITAC recommends that the State acquire a single database to be implemented as the enterprise solution in accordance with the following motions passed at the March 3, 1994 meeting:

- *Acquire an Oracle site license for the database software and that ISD, as part of their rate review, consider how that cost be recovered.*
- *Acquire a site license for the programming tools and end-user access software from a vendor that is yet to be determined, the vendor to be determined by ISD.*

Coordination Task Force Report

ISSUE #6: LOCAL AREA NETWORK (LAN) OPERATING SYSTEM DIRECTIONS

Should the state take a coordinated approach to acquiring and providing LAN network operating system services (Novell Netware 4.0)? Should ITAC endorse the enterprise direction for Novell's Netware made by ITMG?

COMMENTS:

Novell Corporation's Netware is the state standard for LAN operating systems. There are over 200 individual Netware licenses owned by state agencies, separately purchased through Novell Corporation or authorized resellers of the software. Agencies independently support their licenses, relying on ISD for limited vendor technical support coordination.

An ITMG Network Policy Subcommittee was formed to recommend the best means of acquiring future releases of the software. A primary reason for this joint effort was the evolving nature of the Netware software which incorporates greater emphasis and reliance on an enterprise-wide support structure. The task force adopted a 5-part resolution in December, 1993, which was subsequently approved at ITMG's January, 1994, meeting. The resolution states, in part: "The state of Montana is the enterprise" and that "The root Network Directory Structure (NDS) needs to be administered centrally."

OPTIONS:

- A. ITAC could endorse the current direction being taken by ITMG to acquire a single Netware license that would be implemented and administered centrally.
- B. ITAC could recommend that ITMG and ISD reassess the current emphasis on an enterprise solution.

Advantages of an Enterprise Netware Direction:

- ➡ Greater consistency of use.
- ➡ Potential for cost savings due to consolidated purchasing.

Issue 6: Local Area Network (LAN) Operating System

Coordination Task Force Report

- ➔ Consistent with current legislative direction.

Disadvantages of an Enterprise Netware License:

- ➔ Reduced agency autonomy.
- ➔ Potential difficulty of individual agencies upgrading in step with the desires of a majority of state agencies.
- ➔ Increased management coordination requirements.

RECOMMENDATIONS:

ITAC recommends that the state acquire a single Netware license to be implemented as the enterprise solution in accordance with the following motions passed at the March 3, 1994 meeting:

- ➔ *Upgrade the existing Netware 3.x standard to Netware 4.x, implementing Netware 4.x as the enterprise network.*
- ➔ *Enter into a master license agreement with Novell.*

Coordination Task Force Report

ISSUE #7: PERSONAL SERVICES

How should the state acquire personal services used in support of its data processing needs?

COMMENTS:

There are two ways in which to view how the state should acquire technical support services: 1) the degree of centralization of technical services appropriate for the state, and 2) the sources (and relative mix) of those services.

Degree of Centralization of Technical Support Services - Agencies currently obtain their technical support services from a mix of internal staff hired by the agency and services provided by ISD. The level of service an agency obtains from agency employees depends on the agency's desire to provide their own services internally and the extent of services available from ISD for a particular type of technical service (Novell support, for example). Some small agencies receive very little technical support services, either from internal staff or from ISD. There is no model used to determine the relative degree of services provided internally and externally (by ISD). There are no guidelines available to determine whether or not agencies' technical support groups are over- or under-staffed relative to 1) workloads within the agency, or 2) workloads in other agencies.

Advantages of Centralized Technical Support:

- ➡ Potential for lowest total costs.
- ➡ Better coordinated technical environment (use of hardware and software, training, etc.)

Disadvantages of a Centralized Technical Support:

- ➡ Less likelihood of acquiring best "subject matter expertise" specific to an agency's needs.
- ➡ Reduced flexibility for agencies.

Sources of Technical Support Services. The state currently uses three sources for acquiring the professional personnel services it needs to meet its data processing needs. Each agency determines the relative mix of services to be acquired from the alternatives identified below. The three alternatives in use by state agencies are:

Issue 7: Personal Services

Coordination Task Force Report

Dedicated Staff - Several agencies have relatively large, dedicated technical staffs (greater than 10 FTE's) using permanent state employees. Total state IT employment based on personnel records is approximately 275 FTE's, but this does not include a substantial number of "hidden" FTE's who provide technical support but are not classified as data processing professionals.

Advantages of Dedicated Staff:

- ➡ Most responsive to agency needs.

Disadvantages of a Dedicated Staff:

- ➡ Staff development responsibilities borne by the agency.

Private Sector Staff (Outsourcing). Outsourcing to private sector consulting services companies has increased significantly in the past few years. Most of the effort has been acquired using an RFP/consulting services contract for a specific development project, including at least three large (multi-million dollar) contracts (TEAMS, SEARCHS, & ABIS). Facilities management contracts have also been established for TEAMS and SEARCHS. BDM International also has over \$1,500,000 in projects using the "MIS Consulting Services" contract with ISD that is available for use by all state agencies.

Advantages of Private Sector Staff:

- ➡ Staff development responsibilities borne by the consultant.
- ➡ Source of "subject matter expertise".

Disadvantages of Private Sector Staff:

- ➡ Higher costs (not necessarily less cost effective).

Internal Consulting. ISD provides a 14 FTE internal consulting service that is available to all state agencies for the development and support of application systems. This service has been declining in recent years relative to the other options and currently is not able to take on new development projects due to existing support workloads for agency customers and ISD's internal systems. These FTE's are now almost entirely dedicated to supporting existing systems.

Advantages of Internal Consulting Staff:

- ➡ Lower rates.
- ➡ Less formal (legal) contractual relationship.
- ➡ Familiarity with state environment.

Coordination Task Force Report

Disadvantages of Internal Consulting Staff:

- ➡ Less responsive (serving multiple agencies, small staff relative to project requests).
- ➡ Less experienced in specialized technical areas.

Almost all agencies have at least some dedicated internal staff. Most, if not all, private sector services are used in support of large application systems (TEAMS, SEARCHS, etc.). Almost all agencies rely on dedicated staff for mid-range computer support and for their office automation technical support (LAN support, wordprocessing, spreadsheets, personal database support, etc.).

A key issue with respect to the appropriate balance of centralization and flexibility is the degree of individual agency discretion to determine the type and source of personal services.

OPTIONS:

- A. ITAC could affirm the current practice of using a combination of dedicated staff, outsourcing, and an internal consulting group to provide IT personnel services.
- B. ITAC could recommend changes to current practices, including 1) proposing one or more options be expanded to provide additional services, 2) eliminating one or more of the support options being used, and 3) a proposal could be presented to the governor and the 1995 legislature incorporating 1) or 2) or some combination of both.
- C. ITAC could recommend a greater or lesser degree of consolidation of IT personal services within state government.
- D. ITAC could recommend a clearer delineation of responsibilities between the agencies and ISD, including a model definition of appropriate technical support to be obtained by all agencies and a better description of the services provided by ISD.
- E. ITAC could recommend that ISD increase the number of staff available for providing technical support services, including 1) additional support for small agencies with little or no technical staff, 2) new technologies (client server, etc.), and 3) traditional application development and support services.

Coordination Task Force Report

- F. ITAC could recommend that a technical training model be developed that specifies the appropriate training requirements for the various types of technical support needed by agencies.

RECOMMENDATIONS:

ITAC recommends that a task force be established to:

Clarify the respective responsibilities of the agencies and ISD, including a model definition of appropriate technical support to be obtained by all agencies and a better description of the services provided by ISD.

Make recommendations to the 1997 Legislature on the appropriate means of acquiring IT personal services. Issues that the task force would address include the following:

- *Centralization vs. decentralization*
- *Nature of services acquired (staff size, composition, etc.)*
- *Agency vs. private sector vs. ISD staff*
- *Recruiting, training, compensation, and retention*

Coordination Task Force Report

ISSUE #8: NETWORK COORDINATION

To what extent should ISD manage the data network, especially those portions of the network that are located within state agencies?

COMMENTS:

One important coordination issue is the extent to which ISD should manage and control the network infrastructure by managing network equipment within the agency. Currently, ISD plays a significant role in managing network equipment located within agencies in order to meet statewide network management objectives.

There is general agreement on the need for coordinated management of the data network but less consensus on exactly how this should be accomplished or how far into the agency centralized control of network equipment should extend. On one hand, a certain degree of control is necessary to ensure that clear responsibility exists for providing network availability. On the other hand, excessive control can result in costs associated with unnecessary coordination requirements and impede innovation within a particular agency to satisfy their unique requirements.

ISD's current practice is to set networking standards and to own networking equipment, including software, only to the extent that is necessary to properly manage and offer a reliable, well-maintained data network facility for all agencies to use. When ISD determines that an agency's acquisition of a particular product will not affect the current or future reliability and capability of the network, then the agency is given the freedom to acquire products of their choosing. If, however, in the opinion of ISD such an acquisition would negatively effect the management or operation of the network, then the agency's acquisition is denied.

This may eventually become true with regard to Local Area Network (LAN) acquisitions as well. If LAN purchases can be made which do not affect the stability of the statewide network infrastructure, then greater agency autonomy could be allowed.

Two issues that will need to be addressed in future decisions regarding control of network-related acquisitions will be the cost effectiveness associated with greater

Issue 8: Network Coordination

Coordination Task Force Report

agency autonomy and whether or not a process to resolve disputes will have to be established.

OPTIONS:

- A. ITAC could affirm the current practice of ISD coordinating interagency networks (voice, data, video, radio), with active input from agencies on product needs and choices.
- B. ITAC could recommend that ISD relinquish control over data network hardware and software products (i.e., communications boards) whenever it was feasible and cost effective.
- C. ITAC could recommend that data network products not be coordinated.
- D. ITAC could recommend that the costs associated with greater or lesser agency autonomy be clarified.
- E. ITAC could recommend that a process be established to resolve disputes regarding network management, equipment and software acquisitions, and standards.

Advantages of Network Coordination:

- Common systems provide easier access and cross communications.
- Agencies can communicate to other entities as needed, and this need appears to be growing.
- Common products improve productivity.
- Common products minimize training costs.
- Current scheme is required in some areas.
- Provides best platform for growth for data networking.

Disadvantages of Network Coordination:

- Agencies feel they are too limited in their choice of products.
- Some agencies may prefer other products that ISD can't support; several products provide the same type of capability.

Coordination Task Force Report

RECOMMENDATIONS:

ISD should coordinate interagency networks (voice, data, video, radio) with active input from agencies, and ITAC when appropriate, on product needs and choices.

ISD should establish a process to resolve disputes regarding management of the network.

Coordination Task Force Report

ISSUE #9: GOVERNANCE: ITAC AND THE DEPARTMENT OF ADMINISTRATION

How should ITAC be organized to best represent the needs of the agencies and coordinate its activities with the Department of Administration?

COMMENTS:

Issue 9: Governance: ITAC and the Department of Administration

The current role of ITAC as defined in 2-17-502, MCA, is to function in an advisory capacity to the Department of Administration. Historically, ITAC's influence has varied over the years. More recently, ITAC has been much more active, including broad-based participation and representation from senior agency management. It is unlikely that ITAC's current level of influence in IT issues will diminish given the satisfaction expressed regarding the degree of coordination that now exists.

As ITAC has become increasingly involved in data processing issues facing the state there has been a corresponding increase in the level of influence exerted upon ISD, the group charged with implementing most recommendations. However, there has been relatively little change in the formal processes or procedures used by ITAC and ISD to ensure that recommendations are appropriately developed, communicated, and, as necessary, problems adjudicated whenever they have occurred. Changes may be required in order to better coordinate data processing activities especially as they result from the more active participation of the member agencies in ITAC.

There are a number of issues that potentially would be better served by changes to the mechanisms now used to manage the existing working relationship between ITAC (representing the needs and views of agencies) and ISD (representing the DOA's responsibilities for establishing policies, reviewing and approving agency acquisitions, and providing centralized services). Examples include strategic planning activities, budgetary coordination and advocacy, "enterprise" advocacy, and dispute resolution.

There is a very wide range of alternatives to the current ITAC/DOA working relationship--from one extreme of total decentralization (essentially no need for an organization like ITAC) to the other extreme of total centralization of direction and control with ITAC. There are at least two alternatives that fall somewhere in the

Coordination Task Force Report

middle that recognize the practical problems associated with either extreme and also recognize the advisory nature of the role that currently is specified in statute for ITAC. Each alternative is based on the assumption that some subset of the full ITAC membership is necessary in order to focus responsibility and provide a more responsive group than can be expected from a group the size of the entire ITAC membership. Two possible alternatives are:

Ad Hoc Subcommittees/Task Forces - Ad hoc, issue-specific subcommittees could be formed by ITAC to address specific issues for such items as dispute resolution or "enterprise" advocacy, or to provide legislative advocacy for initiatives endorsed by the full ITAC membership. The subcommittees would be active only as long as the issue was active.

Advantages of Ad Hoc Subcommittees/Task Forces:

- ➡ Greater participation based on specific member interest and expertise.

Disadvantages of Ad Hoc Subcommittees/Task Forces:

- ➡ Less continuity relative to more long-term participation.
- ➡ Greater chance of unbalanced representation.

Steering Committee - A steering committee providing balanced representation of the full ITAC membership would be selected to represent ITAC on a wide range of issues. This group would address the full range of issues described in Option "A" for the ad hoc committees. Committee membership terms could be structured to provide continuity, probably with staggered terms. Continuity could be encouraged by extending individual membership on the committee and be expected to serve in increasingly senior positions (general membership, task force chairs, and ultimately committee chair).

Advantages of Steering Committee:

- ➡ Greater influence through longer-term, broader-based involvement in IT issues.
- ➡ Greater likelihood of ITAC developing its own initiatives.
- ➡ Greater continuity--longer term membership.
- ➡ More informed decision making (exposure to broader range of issues).
- ➡ Greater likelihood of balanced agency representation (various branches of government, large and small agencies, etc.).

Coordination Task Force Report

Disadvantages of Steering Committee:

- ➡ Time commitment for members.
- ➡ Possibility of decisions made without participation of full ITAC.

OPTIONS:

- A. ITAC could affirm the current practice of relying primarily on ISD to support ITAC activities, establish and organize budgetary initiatives, organize legislative support for statewide IT initiatives, resolve disputes, and any other IT issues.
- B. ITAC could establish a process of establishing ad hoc committees to represent ITAC on an issue-by-issue basis.
- C. ITAC could establish a steering committee comprised of ITAC members who would represent ITAC on a wide range of issues over the term of their membership.
- D. ITAC could reaffirm the current practice of allowing only senior level agency management to serve on ITAC.

RECOMMENDATIONS:

ITAC recommends the:

Continuation of the current practice of relying on ISD for primary support of ITAC activities,

Establishment of a process using ad hoc committees appointed by the Director of the Department of Administration to adjudicate disputes between agencies and/or ISD,

Establishment of issue-specific task forces comprised of ITAC members who would represent ITAC on specific issues, including rate setting, budgetary initiatives and, legislative advocacy,

Establishment of a steering committee comprised of ITAC members who would represent ITAC on strategic IT issues over the term of their membership,

Reaffirmation of the current practice of allowing only senior level agency management to serve on ITAC.

Coordination Task Force Report

ISSUE #10: GOVERNANCE: ITAC AND ITMG

What is the appropriate relationship between ITAC and ITMG?

COMMENTS:

Issue 10: Governance: ITAC and ITMG

The ITAC is established in code 2-17-502, MCA. ITAC deals almost exclusively with policy issues. The ITMG is established by charter and essentially is an independent group comprised of agency data processing management. Each group operates relatively independently of each other. The single reference to ITAC in ITMG's charter is a procedural point regarding the chair's responsibility to "represent the ITMG during meetings of the ITAC".

Like ITAC, ITMG has become much more active in the past few years and has taken positions on a wide range of issues. Historically, ITMG has limited its activities to technical issues or issues that are primarily tactical in nature. More recently, ITMG has addressed issues of more strategic importance, including some that have had major, statewide implications and/or budgetary impacts in excess of \$1,000,000. In some cases, issues have been developed by ITMG with the goal of synchronizing actions as much as possible with ITAC activities, but the two groups for the most part have operated relatively autonomously.

Should there be a more formal relationship established between ITAC and ITMG? Do the relative roles, responsibilities, and authorities of the two groups need to be clarified?

Three possible alternatives are:

Independent Status. ITMG and ITAC would operate essentially as they have in the past with no formal relationship established between the two organizations.

Advantages of Independent Status:

- ➡ Autonomy provides more diversity and encourages innovation.

Disadvantages of Independent Status:

- ➡ Potential for conflicting and uncoordinated decisions or actions.

Coordination Task Force Report

Formal Relationship Established. A formal relationship could be established between ITAC and ITMG within the general confines of independent status for both groups. Both groups would continue to operate under separate authority but the relationship between the two groups would be clarified. The respective roles of the two groups would be identified and the process and procedures for any communications or approvals would be established.

Advantages of Formal Relationship:

- ➡ Better communication between the two groups
- ➡ Less confusion and greater efficiency (better coordination of efforts).

Disadvantages of Formal Relationship:

- ➡ Potentially makes both groups less responsive to issues for which a decision is needed.

ITMG attached to ITAC. A formal relationship could be established between ITAC and ITMG that places ITMG under the organizational umbrella of ITAC. ITMG would function as a tactical subcommittee of ITAC and operate in an advisory capacity on policy issues. As in Option "B", the relationship between the two groups would be clarified, the respective roles of the two groups would be identified, and the process and procedures for any communications or approvals would be established.

Advantages of ITMG Attached to ITAC:

- ➡ Clearly establishes ITMG's role relative to ITAC's.
- ➡ Better communication between the two groups.
- ➡ Less confusion and greater efficiency (better coordination of efforts).

Disadvantages of ITMG Attached to ITAC:

- ➡ Potentially makes both groups less responsive to issues for which a decision is needed.
- ➡ Potential perception of a loss of freedom for ITMG that would result in a less participation and advocacy by ITMG.

OPTIONS:

- A. ITAC could affirm the current practice of ITAC and ITMG operating essentially as two autonomous organizations.

Coordination Task Force Report

- B. ITAC could affirm the independent status of both ITAC and ITMG but request that the relative roles of ITAC and ITMG be clarified in charter.
- C. ITAC could incorporate ITMG into ITAC and clarify the relative roles of both ITAC and ITMG.

RECOMMENDATIONS:

ITAC recommends that a task force be established to formally document the relationship that should exist between ITAC and ITMG and present the proposed policy to ITAC for review and approval. This task force should have the goals of clarifying the relative roles of ITAC and ITMG and ensuring that good communication continues between the two organizations.

Funding Task Force Report

*Information Technology Advisory
Council*

July 1994

Funding Task Force Report

INTRODUCTION

Investments in Information Technology (IT) are critical to the mission of state government, particularly in an era of binding resource constraints and increasing public scrutiny of government. IT offers the following benefits:

- ➔ IT allows more efficient use of resources by increasing productivity. It allows agency missions to be accomplished using fewer resources (people) or, conversely, more services to be provided with existing resources. The average cost per unit output is reduced through proper use of IT.
- ➔ IT allows "line" employees to provide better, more timely services to the consuming public. Computerized records and retrieval systems allow agency personnel instantaneous access to client records. Inquiries from clients regarding the status of their file can be handled within minutes rather than days under a manual system. Similarly, general information requests can be answered in shorter time periods.
- ➔ IT can provide opportunities for increased public accountability. The relative ease of responding to public requests, providing accurate information to the public, and making this information readily available for public scrutiny creates a more open process and increases accountability.
- ➔ IT can lead to more informed management decisions. By making additional information available in a readily usable form, the consequences of management (including legislative) decisions can be more fully understood and documented. "What if" analyses are made possible, as well as the opportunity to monitor the effects of previous decisions.
- ➔ IT can create a more responsive legislative process.

Introduction

Funding Task Force Report

ISSUE #1: PROPRIETARY FUND

Should the proprietary fund continue to be used as a primary funding source for IT?

COMMENTS:

Issue 1: Proprietary Fund

The proprietary fund is the current source of funding for ISD and mainframe/network functions. It may also have further applicability for end-user funding of IT. Use of the proprietary fund is very appropriate as used by ISD in the provision of service to other agencies. It is most appropriate for an activity providing products or services to other state agencies or external customers where operating the activity as a traditional business venture (i.e., charge for services) is efficient. Full costs should be recovered.

Proprietary funds are defined in statute and are to be used only where full costs of providing a product or service are being recovered, including asset recovery. The criteria for use of the proprietary fund is to operate an activity in a business fashion, recovering all costs of providing the service.

ISD, or the activity providing the service, prepares the budget for legislative review and collects and administers the funds.

OPTIONS:

- A. Continue to use the proprietary fund as a primary funding source for IT investment and support, including investments necessary to stay abreast and current with product and service improvements.

Advantages:

- ➡ It can be an efficient means of recovering the cost of providing a governmental service.
- ➡ It can be quite effective in terms of providing IT services.
- ➡ It stays out of direct general fund support, except as basis of fees.
- ➡ It can provide efficiency and incentives to appropriate planning and conservative use of billed resources.

Funding Task Force Report

Disadvantages:

- ➡ It is sometimes difficult to satisfy/educate users/legislature regarding the methodology and fairness of the cost recovery method.
- ➡ Expenditures and budget are very visible and subject to cuts.
- ➡ Cost avoidance may result in fragmented or less "open" solutions.
- ➡ The good for all may not result in the best value or solution for some.

- B. Eliminate use of the proprietary fund as a primary funding source for IT, using the General Fund as the primary funding source.

Advantages:

- ➡ "Free" IT resources could encourage agencies to use the available technology and share resources.
- ➡ Eliminate cost avoidance problems.
- ➡ Different methods would need to be devised to appropriately use and leverage federal funding.

Disadvantages:

- ➡ Ability to grow, enhance, and support the infrastructure would be severely impacted by the state's financial condition.
- ➡ Potential for greater disparity in technological advances and improvement in business using technology among "haves and have nots".
- ➡ Difficulty in managing efficiencies and encouraging conservative or careful use.

- C. Supplement the primary funding source for IT, actively pursuing alternative funding sources (see Appendix D.) as they may be available and appropriate for infrastructure investment.

Advantages:

- ➡ Opportunity to proactively build the infrastructure that will be required for state and national technology initiatives.

Disadvantages:

- ➡ Resources (grant writer, research, etc.) will need to be allocated to search, obtain, and administer these funds.

Funding Task Force Report

RECOMMENDATIONS:

Continue to use the proprietary fund as a primary funding source for IT investment and support with rates developed to provide full asset replacement.

Funding Task Force Report

ISSUE #2: DATA NETWORK FUNDING (from coordination task force)

Should ISD continue to recover network costs through average cost assessments?

COMMENTS:

Full costs of today's networks are recovered through a variety of fees. The type of fee varies, depending on the nature of the service being provided, namely:

- ➡ Telephone Services - Averaged Cost Monthly Fee per user. The aggregation of telephone systems has resulted in high featured systems at reasonable and stable costs.
- ➡ Long Distance Telephone Services - Time and Distance sensitive usage fees. The aggregation of long distance has resulted in low cost and high quality service, e.g., 40% off AT&T's day time rate.
- ➡ Video Services - Time sensitive usage fees. The aggregation of video traffic across the state's existing intercity circuits has resulted in usage-sensitive rates substantially less than through purchasing new circuits.
- ➡ Data Network Services - Averaged Cost Monthly Fee per user. The aggregation of data networks has resulted in high quality interagency data communications to all 56 counties. The averaging of costs through the user base has allowed the development of the network to locations that otherwise could not have afforded the expense. Development of the existing data network, with the exception of SUMMITNET, was driven and supported by mainframe data processing traffic. SUMMITNET is ISD's FY96-97 legislative proposal for network expansion. (See Appendix A.) The cost of this network includes approximately \$1,000,000 for 7equipment and support used exclusively for mainframe processing traffic, known as Systems Network Architecture (SNA) protocol traffic.
- ➡ SUMMITNET Services - Averaged Cost Monthly Fee per site. The aggregation of University and Department of Transportation data needs has resulted in the beginnings of a peer-to-peer network which may be used by other agencies at reasonable, and even declining, costs.

Issue 2: Data Network Funding

Funding Task Force Report

Each type of user fee may be appropriate for the given service. Four principles may be used to judge a particular rate making method:

- ➡ Simplicity - methodology should be simple.
- ➡ Understandable - service provided should be conceptually understandable, and attributable to the rate.
- ➡ Correlation - rates should recover only the costs for the services rendered.
- ➡ Cost Effective - cost of system administration cannot exceed the benefits.

There are three major cost components to all networks: 1) equipment, including software, 2) circuitry, and 3) personnel costs associated with supporting the equipment and circuitry. The model of average fees and usage rates will likely remain in the future, but the existing data network averaged cost monthly fee has been controversial and the controversy and concern has reached a point of potentially causing a barrier to new technology initiatives.

Advantages of Averaged Cost Assessments:

- ➡ Traditional in communications areas.
- ➡ An equitable way to spread cost for all users' benefits.
- ➡ Provides for greater outreach of networks.
- ➡ Provides for an adequate base from which to develop new systems.
- ➡ Easy to administer.
- ➡ Meets the "Simplicity" principle.
- ➡ Meets the "Correlation" principle.
- ➡ Meets the "Cost Effective" principle.

Disadvantages of Averaged Cost Assessments:

- ➡ Some users may not get full benefit for the rate they pay.
- ➡ Development or replacement costs built into rates are difficult for users to understand and agree upon.
- ➡ For fairly complex services, does not meet the "Understandability" principle.

The task force determined that the current methods used to recover the costs of the voice and video network were appropriate, meet the good rate- making principles, and should be separated from the issues associated with recovering the data network costs.

OPTIONS:

- A. Average Cost Recovery - Continue the current average-cost-based assessment, where the sum of all network costs are distributed to all network users with no consideration given to consumption of resources or discrepancies in infrastructure costs created by geographically remote locations or other variables.

Advantages:

- Easiest from a billing perspective.
- Simplest of all alternatives.
- Easy to budget.
- Easy to explain to Legislature.
- Allows greater participation by small agencies.
- Has an enterprise perspective.
- Encourages the expansion of the network to geographically remote locations.

Disadvantages:

- Not usage or geographically sensitive, hence there are "winners and losers" and the "Understandability" principle is not met.
- Does not meet "Correlation" principle very well.
- Is not generally agreed with by the computing community.
- Does not have a self-governing, usage-sensitive character and hence encourages unsubstantiated usage (SNA excluded).

- B. Local Area/Wide Area Recovery - Develop a two-tier "telephone system" rate model with local area data communications costs recovered by an average access charge and long distance data communications costs recovered on a usage, capacity, time, and/or distance basis.

Advantages:

- Better meets "Correlation" principle.
- Appropriately addresses University participation.
- Natural, self-governing characteristic for connections across the Wide Area Network (WAN).
- Does not limit application design on the Metropolitan Area Network (MAN) because of usage-sensitive rates.
- Meets "Understandability" principle.

Funding Task Force Report

Disadvantages:

- ➡ Does not fully address "Correlation".
- ➡ Not as simple as "Average Costs".
- ➡ Technology for capturing usage data may not exist.
- ➡ May require ISD to custom develop or be totally out of reach financially.
- ➡ May not meet "Cost Effective" principle.
- ➡ Would require base-year usage data to be established for budgeting; therefore not practicable until the biennium following implementation of metering capabilities.
- ➡ May introduce cost shifting between agency and funding source.
- ➡ Discourages the network from reaching geographically remote locations.
- ➡ Discourages enterprise thinking.
- ➡ More complex billing system than "Average Cost"; may not meet "Cost Effective" principle.

- C. Local Area Network (LAN) Recovery - Develop a two-tier "telephone system" model with LAN access costs recovered via an averaged access charge per user, with out of town and MAN access metered and charged on a usage basis.

Advantages:

- ➡ Better meets "Correlation" principle than either average cost or MAN options.
- ➡ Appropriately addresses University participation.
- ➡ Natural self-governing characteristic for connections across the LAN and Wide Area Network (WAN).
- ➡ Does not limit application design on the LAN because of usage sensitive rates.
- ➡ Meets "Understandability" principle; conceptually understandable because of precedence set by the telephone system.

Disadvantages:

- ➡ Does not fully address "Correlation".
- ➡ Not as simple as "Average Costs" or MAN option.
- ➡ Technology for capturing usage data may not exist.
- ➡ May require ISD to custom develop or be totally out of reach financially.
- ➡ May not meet "Cost Effective" principle.
- ➡ May introduce cost shifting between agency and funding source.

Funding Task Force Report

- Discourages the network from reaching geographically remote locations.
- Discourages enterprise thinking.
- More complex billing system than "Average Cost"; may not meet "Cost Effective" principle.

D. True Usage-Based Recovery - Rates totally based on usage of the network with an initial cost to connect into the network.

Advantages:

- Better meets "Correlation" principle than other options.
- Appropriately addresses University participation.
- Natural self-governing characteristic for all connections.

Disadvantages:

- Extremely complex, does not meet "Simplicity" principle; may not meet "Cost Effective" principle.
- Technology for capturing usage data may not exist.
- May require ISD to custom develop or be totally out of reach financially.
- May not meet "Cost Effective" principle.
- Will introduce cost shifting between agency and funding source.
- Initial cost to reach geographically challenged locations will be barriers.
- Discourages enterprise thinking.
- Potential to limit appropriate use of technology.

Funding Task Force Report

RECOMMENDATIONS:

ITAC recommends that ISD continue with the current methods for recovering the costs of voice and video network costs.

ITAC recommends that ISD adopt a two-tier "telephone system" model for the FY 96-97 biennium with Local Area Network (LAN) costs recovered via an averaged access charge and Wide Area Network (WAN) (out of town or community) costs recovered by a charge back which is based on some usage, capacity, time, and/or distance basis. ISD, ITMG, and ITAC will work together to develop recommendations and a capability to attain this model. In the interim, average cost assessments should be used to recover WAN costs.

ITAC recommends that the cost of access and use by Universities and other entities is recovered through a fee structure designed for those entities.

ISSUE #3: COORDINATION

How might state agencies coordinate, prioritize, and share IT to better use available funding?

COMMENTS:

ITAC has, in the past two legislative sessions and in plans for the upcoming legislative session, prioritized statewide technology initiatives and cooperated to support those initiatives in the budget process. This approach was very successful for projects such as the Interactive Voice Response (IVR) project and has increased the state's technologist credibility as a "united front" is presented.

Issue 3: Coordination

OPTIONS:

- A. Use a coordinated effort to prioritize, submit, and support statewide IT projects during the budgetary process.

Advantages:

- ➡ Enhances ability for all agencies toward statewide IT infrastructure using ITAC and ITMG.
- ➡ Pooled funding and other resources may allow for larger investment potential.

Disadvantages:

- ➡ Coordination of funding may be difficult to administer. Who pays-- and for what?
- ➡ It may leave some small applications to their own resources.

- B. Present a "united front" to the legislature by submission and support by ITAC members of a prioritized IT budget.

Advantages:

- ➡ The Legislature can listen to one overall presentation; they could track IT development in one place. There is safety in numbers-- good lobbying technique.

Funding Task Force Report

Disadvantages:

- ➡ The Legislative subcommittee has to have a progressive makeup; one committee could make it or break it for the entire state data processing contingency.

- C. Agencies should fend for themselves in acquiring budgetary authorization for IT investments.

Advantages:

- ➡ Some agencies may have had successful experiences using this method. It keeps the funds segregated and it satisfies individual needs to a certain extent.

Disadvantages:

- ➡ An agency could lose it all; alone they may not have sufficient enough resources (assets) to accomplish goals.

RECOMMENDATIONS:

Pursue a coordinated statewide (centralized) infrastructure for IT development and consistency using pooled resources with ITAC continuing to prioritize, submit, and support statewide IT projects.

ITAC should participate more actively in standards for statewide use and give consideration to funding within the proprietary rate structure for site licenses or master license agreements to purchase standard software products.

ISSUE #4: FUNDING INCREASE

How should the State of Montana fund increases in capital investment for IT?

COMMENTS:

IT investments have typically been made from a limited number of funding sources: proprietary funding; general fund (for general fund programs); or federal program funding. In order to progress as will be demanded by the public, the basic IT infrastructure will need significant investment in the next five years. This investment will include increased capacity of the network to transport a broader variety of data, image, voice, and video; additional traffic as a part of national initiatives and public demand for access; and more sophisticated applications (databases, imaging systems, multi-media) to provide access (and protection) to agency information by other agencies and the general public.

Issue 4: Funding Increase

OPTIONS:

- A. Increased capital investments (above current level replacement assets) with high acquisition cost and long-term life expectancy should be initially financed using debt financing or lease purchase agreements (alternate funding mechanisms A and B listed in Appendix D). Repayment should be through adjusted rates paid to the proprietary fund.

Advantages:

- ➡ Opportunity to proactively build the infrastructure that will be required for state and national technology initiatives.

Disadvantages:

- B. Supplement the primary funding source for IT, actively pursuing alternative funding sources (see Appendix D) as they may be available and appropriate for infrastructure investment.

Advantages:

- ➡ Opportunity to proactively build the infrastructure that will be required for state and national technology initiatives.

Funding Task Force Report

Disadvantages:

- ➡ Resources (grant writer, research, etc.) will need to be allocated to search, obtain, and administer these funds.

RECOMMENDATIONS:

IT capital investments (above current level replacement assets) with high acquisition cost and long-term life expectancy should be initially financed using debt financing or lease purchase agreements. Repayment should be through adjusted rates paid to the proprietary fund.

ISSUE #5: EQUAL ACCESS

Can a funding mechanism be developed to allow equal access and availability to every state agency, without regard to size or funding source?

COMMENTS:

A funding mechanism should be developed to allow equal access and availability to every state agency if the State of Montana is going to achieve a consistent level of IT. All of the funding mechanisms addressed--proprietary fund, debt financing, and grants--can be developed in such a way to provide equal access.

To provide equal access, no matter which funding is used, a statewide plan needs to be developed for IT which would include all agencies and which will allow the state to become consistent in IT and provide for a future plan as to where the state should or wants to be.

The current mandates regarding surplus property discourage effective use of outdated IT resources. Agencies with more advanced technology needs are casting off equipment that would be welcome in the smaller agencies that currently have nothing. The more advanced agencies achieved their current level of access by moving older equipment off one desk onto another. This philosophy could work among agencies if the surplus property processes facilitated the exchange instead of impeded it.

The major business of state government is information related. It follows that the majority of employees would have the opportunity to be more effective and productive if given access to the appropriate tools and technology. This fact indicates that funding of IT should be considered as much a part of the cost of hiring and retaining an employee as the cost of a desk, chair, telephone, and ongoing benefits.

Many of the IT tools and resources used today for the average employee are standardized. These products include word processing software, spreadsheets, electronic mail, and computer operating system software. Equal access is facilitated by standard products and would be improved if they also were part of the basic tool set that each "information worker" received.

Issue 5: Equal Access

Funding Task Force Report

OPTIONS:

- A. Change the existing surplus property mandates to facilitate interagency exchange of information technology resources, particularly older personal computers.

Advantages:

- ➡ Continued growth in the percentage of saturation of potential IT users.
- ➡ Longer life cycle of computers.

Disadvantages:

- ➡ Risk of high maintenance cost with older equipment.
- ➡ Risk of frustrated novice users because older technology is harder to support and use.

- B. Expand the current provision of software for individual workstations to include Windows, Wordperfect, Lotus, and DOS, recovering the cost of these products through the proprietary fund. Develop a shared central facility with IT resources that could be shared among agencies which individually cannot afford or justify the capital expenditure. Recover the costs of these resources via the proprietary fund mechanism.

Advantages:

- ➡ Improved compatibility among users when exchanging documents and data.
- ➡ Cost benefits by single, volume purchase.
- ➡ Cost savings by single purchasing effort.

Disadvantages:

- ➡ Difficulty of maintaining appropriate level of software releases.

- C. Develop a central facility with IT resources that could be shared among agencies which individually cannot afford or justify the capital expenditure. Recover the costs of these resources via the proprietary fund mechanism.
- D. Identify, for each agency, the costs to achieve the level of IT desired by an IT plan. The plan would define a "minimum level" technology for each state government employee whose job responsibilities require or would benefit from IT resources.

Funding Task Force Report

- ➡ Use a fixed cost method to ensure all agencies are funded as required to achieve the plan.
- ➡ Develop an IT Bill where all agencies are included in the requirements of the plan.

Advantages:

- ➡ The State of Montana would eventually become consistent in their IT in that all agencies would be on the same level.

Disadvantages:

- ➡ If equal access is attempted and fails, it could have a detrimental effect on those agencies who have adequate funding methods.

Funding Task Force Report

RECOMMENDATIONS:

Funding mechanisms should be developed to allow equal access and availability of IT to every state employee whose job responsibilities require or would benefit from IT resources, without regard to employing agency size or funding source.

Short-Term:

Change the existing surplus property mandates to facilitate interagency exchange of IT resources, particularly older personal computers.

Develop a central facility with IT resources that could be shared among agencies which individually cannot afford or justify the capital expenditure. Recover the costs of these resources via the proprietary fund mechanism.

Long-Term:

Develop a plan that would allow every agency to achieve a "minimum level" technology by the year 2000. The plan would define a "minimum level" technology for each state government employee whose job responsibilities require or would benefit from IT resources and the cost and proposed funding necessary to achieve the level of IT defined.

ISSUE #6: INFORMATION AND EDUCATION

How do we inform and educate the OBPP, the Legislature, and IT consumers (agencies) about the value of IT and the recommendations in this report and the importance of providing the funding necessary for IT support and development?

COMMENTS:

One third to one half of the legislative body will be new in the upcoming legislative session. A variety of resources are available to help inform and educate new and returning legislators and IT consumers. These resources include professional development firms, publicity specialists, ISD-provided training services, and other governmental entities. A local consulting firm could be hired to perform some or all of the education.

Publicity specialists indicate the need to develop a marketing plan and then select the appropriate media to inform the public: television, including public service announcements and talk shows; radio for both paid advertisements and public broadcasting; and print media including advertisements, press releases, and business briefs.

Existing training capabilities within ISD and the training contractor (Helena Vo-tech) could be used to provide formal and informal training. This could be supplemented by videos that are currently available or that could be developed.

The rotunda has the capability for 2 or 3 network connections. Computers could be set up for demonstrations, or a room in the Capitol could be set aside for demonstrations.

The State of Iowa has very actively recruited its legislature for technology advocates and has programs and information to share.

OPTIONS:

- A. Meet at the beginning of the legislative session to inform and educate new and returning legislators. Make an ongoing effort to obtain legislative interest and involvement.

Issue 6: Information and Education

Funding Task Force Report

- B. Use citizen groups, media coverage, newsletters, published reports, meetings with editorial boards, and opinion news articles.
- C. Develop 30-second stories for the evening television news.

Advantages:

- ➡ If the public and legislature are favorable as a result of education, the probability of cooperation and funding is good.

Disadvantages:

- ➡ If the public and legislature are unfavorable as a result of the education, the probability of cooperation and funding could be disastrous.

RECOMMENDATIONS:

Use all appropriate resources to inform and educate the OBPP, the Legislature and IT consumers (agencies) about the value of IT and the importance of providing the funding necessary for IT support and development.

ISSUE #7: BUDGET AND LEGISLATIVE PROCESS

Should IT be recognized as critical to the mission of state government in the budget and legislative process?

COMMENTS:

Investments in IT are critical to the mission of state government, particularly in an era of binding resource constraints and increasing public scrutiny of government.

IT offers the following benefits:

- ➡ IT allows the more efficient use of resources by increasing productivity. It allows agency missions to be accomplished using fewer resources (people) or, conversely, more services to be provided with existing resources. The average cost per unit output is reduced through the proper use of IT.
- ➡ IT allows "line" employees to provide better, more timely services to the consuming public. Computerized records and retrieval systems allow agency personnel instantaneous access to client records. Inquiries from clients regarding the status of their files can be handled within minutes rather than days under a manual system. Similarly, general information requests can be answered in shorter time periods.
- ➡ IT can provide opportunities for increased public accountability. The relative ease of responding to public requests, providing adequate information to the public, and making this information readily available for public scrutiny offered by information technology creates a more open process and increases accountability.
- ➡ IT can lead to more informed management decisions. By making additional information available in a readily usable form, the consequences of management (including legislative) decisions can be more fully understood and documented. "What if" analyses is made possible, as well as the opportunity to monitor the effects of previous decisions.
- ➡ IT can create a more responsive legislative process.

Issue 7: Budget and Legislative Process

Funding Task Force Report

OPTIONS:

- A. Recommend forming a legislative subcommittee responsible for the review of all IT proposals. Funding for proposals has historically varied from subcommittee to subcommittee, strongly influenced by both the subcommittee's makeup and successes or failures of past projects and any individual agency's ability to successfully convince its subcommittee of the merit of its projects. One subcommittee, whose charge would be reviewing all agency IT proposals would potentially make more consistent, informed decisions.

Advantages:

- ➡ Consistent, informed funding and statute decisions regarding IT proposals.

Disadvantages:

- ➡ Risk of ending up with less funding than we are able to acquire now.

- B. ITAC/ITMG work to develop state IT infrastructure plan. ITAC/ITMG should complete a system plan that offers a summary of the current status of IT and realistic goals for the remainder of the decade. The plan is intended as a means to guide IT infrastructure investments (including guidelines on when it's appropriate to invest in new technological offerings) and agency requests for funding and to offer adequate forewarning about product availability and support.

Advantages:

- ➡ Planning would lead to wiser resource use and investments in appropriate technologies.
- ➡ The base level of IT resources could be developed so additions for future investments can be incorporated relatively painlessly.
- ➡ Planned investments would receive funding relatively easily.
- ➡ Duplication of core data base items may be reduced.

Disadvantages:

- ➡ The plan would be nonbinding and likely to change significantly with new technological offerings.
- ➡ The development of a plan would require significant time and resources.
- ➡ Legislative funding is not guaranteed.

Funding Task Force Report

- C. ITAC/ITMG review of significant agency requests for IT and review for consistency with state plan and direction. Agency IT requests are currently presented as standalone investments, with little if any prioritization among competing investments across agencies. As a result, some requests may be funded simply because of the interests of the appropriations subcommittee, the salesmanship of the agencies' personnel or the agencies' funding mix. Some institutional arrangement to analyze and prioritize agency requests and implementation plans may be beneficial.

Advantages:

- ➡ All major investments could be measured using the same yardstick or standards.
- ➡ ISD rates and staffing could be adjusted to reflect investment recommendations.
- ➡ Presents well thought out package to the Legislature that is consistent with larger vision.

Disadvantages:

- ➡ Will be forced to say "no".
- ➡ Presumably, does not increase aggregate funding, only which requests are more likely to be funded.

- D. ITAC/ITMG develop presentation/analysis standards. Given potential competition for IT funding and skepticism about its merits among legislators, it is important that previously approved investments provide the benefits claimed and legislative credibility be improved. One oversold funding decision can erode the willingness to fund future investments. Some standards may be appropriate to prevent this temptation and to show the request has been thoroughly researched.

Agencies could more effectively lobby for IT funding if their investment proposals are held to the same standards as private sector investment decisions. A good private sector manager will approve such a decision if the returns meet or exceed those of competing investments. While rate of return analyses may not work well in the public sector, certainly variations of cost/benefit analyses which identify benefits, even if they are not quantifiable, can be conducted and presented.

Funding Task Force Report

Advantages:

- ➡ Can increase legislative credibility by insuring all expenditure impacts are considered.
- ➡ Forces agencies to give more careful consideration to IT benefits.
- ➡ Analyses will provide additional information to legislature to judge merits of competing investments.
- ➡ May act to increase overall investment by increasing legislative willingness to fund.
- ➡ Couches decision in a fashion many legislators can understand.
- ➡ Forces requesting agency to identify and present all perceived cost and benefit items.

Disadvantages:

- ➡ Increases planning time.
- ➡ Some benefits may be difficult if not impossible to measure.
- ➡ Could become too rigid and reduce agency flexibility, if locked into specific plan.
- ➡ Can still oversell projects by overestimating benefits and underestimating costs.
- ➡ Adds additional planning elements.
- ➡ May add to legislative frustration in cases where they are federally mandated to fund low return investments.

- E. One-time system modernization project. Concern and frustration has been expressed that the lack of funding has resulted in the maintenance of antiquated systems. Presumably costs could be reduced or service delivery improved if these systems were updated to benefit from new technology.

A one-time computer system audit could be conducted to inventory present systems and to judge whether modernization is cost effective. A special team of system analysts could be funded within ISD to conduct this review and to develop modernization plans to be scheduled over future biennia.

Advantages:

- ➡ Certain services could be improved through modernization of IT and rethinking the status quo.
- ➡ Certain agency fixed costs could be reduced.

Funding Task Force Report

Disadvantages:

- ➡ Presumably would require additional ISD funding that may not produce immediate benefits.

- F. Document successes of previous investments. Often IT investment decisions are viewed as isolated, increased funding requests. The potential benefits of reduced FTE levels and program funding needs are often ignored in the concern over the aggregate growth in government. No one even asks or is informed about what would have happened had the investment not been approved. (e.g., "We would have needed YY additional FTE and XX funding had this new system not been funded").

Advantages:

- ➡ Provides means to increase legislative credibility and reduce resistance for funding IT investments.
- ➡ Gives additional attention to "good" system projects and people involved.

Disadvantages:

- ➡ Analysis may further highlight "bad" decisions.
- ➡ May provide additional information to support certain union causes.

Funding Task Force Report

RECOMMENDATIONS:

The criticality of IT to the mission of state government should be emphasized by ITAC resolution regarding the following legislative and budget processes:

Recommend formation of a legislative subcommittee responsible for the review of all IT proposals.

ITAC/TTMG development of a state IT infrastructure plan.

ITAC/TTMG review of significant agency requests for IT for consistency with state plan and direction.

ITAC/TTMG development of presentation/analysis standards.

Recommend a one-time system modernization project.

Document successes of previous investments.

Training Task Force Report

*Information Technology Advisory
Council*

July 1994

Training Task Force Report

INTRODUCTION

Based upon the findings of this task force there is a great potential for IT to improve the way the state does business and to improve the quality of service provided to the public. Failure to adequately train staff will inhibit the state's ability to take full advantage of current and emerging IT. The purpose of this task force is to develop options and make recommendations regarding training and support structures which will achieve high, job-related proficiency and use of IT by state of Montana employees and others. The Task Force Action Plan details the six step process used to accomplish this purpose:

- ➔ First, in order to determine the present status and future needs of training required by state agencies, the task force developed a survey. The survey sought information concerning areas of policies for providing training, current budgeting and spending, the means by which training is provided, current levels and resources of technical support, and the appropriate levels of support desired. (See Appendix E for survey).
- ➔ Second, agency IT plans were reviewed to see if training and/or support needs were being addressed, and to determine if training guidelines and support structure design modifications should be included.
- ➔ The third step involved the collection of information on how to meet training demands. This was accomplished by reviewing the existing training opportunities offered by ISD, the private sector, and interagency relationships.
- ➔ Step four evaluated responses on the support structure to determine if current support levels are adequate to meet the needs of agencies.

Introduction

Training Task Force Report

- ➔ Step five addressed the question of whether the state should be concerned with training needs outside of state government to include customers, federal agencies, and the general public.
- ➔ The last step in this process is to develop strategies to provide training and support needed to maintain a high level of proficiency in the use of IT in Montana and present a report to ITAC with appropriate modifications to reflect interrelationships among task force issues and strategies.

ISSUE #1: TRAINING FUNDING

How should the state fund IT training?

COMMENTS:

State agencies approach training in various ways. Generally, training is given a very high priority within agencies; however, training budgets historically are targets for cuts in austere times. IT training is generally not budgeted as a separate item but rather is included as part of each agency's ongoing program for overall training which is subject to scrutiny and reduction.

Of the agencies responding to the survey, 76% currently spend from \$300 to \$5000 annually on IT training. The remaining percentage of agencies allocate training on an hourly basis ranging from 200 to 1600 hours.

OPTIONS:

- A. Affirm the current practice for budgeting and planning IT training.

Advantages:

- Flexibility in allowing resources to be allocated as needed.

Disadvantages:

- Inconsistency in the total training effort.
- Less information available to justify budget increases.
- Smaller budgets have less flexibility, higher risk of not being able to provide adequate training.
- Risk of loss or reduced funding; identifying training budgets could be easily targeted for reductions.

- B. Recognizing that training should be supported as a high priority which would include budgeting at a higher level and including training objectives and accomplishments in agency IT plans.

Issue I: Training Funding

Training Task Force Report

Advantages:

- ➡ Accountability in the allocation of funding.
- ➡ Smaller agencies may have a better chance to provide adequate training.

Disadvantages:

- ➡ Risk of loss of funding because of visibility.

- C. Fund training as an aggregate and "dole" out on FTE basis, based on agency competency requirements.

Advantages:

- ➡ Smaller agencies able to improve technical competence.
- ➡ Provide a level of standardized training.

Disadvantages:

- ➡ Agencies with adequate funding may be forced to share resources with agencies with less resources/funding.
- ➡ Agencies with high competency levels might see a reduction in training opportunities.
- ➡ Risk of using grants or non-general fund money for non-program related expenditures.

- D. Recommend bundling IT training in equipment and software acquisition budgets and expenditures.

Advantages:

- ➡ Acknowledging the true costs upfront in acquiring hardware and software.
- ➡ Smaller agencies may have a better chance to provide adequate training.
- ➡ Better visibility and planning for IT training.

Disadvantages:

- ➡ Difficulty in justification to legislature.

RECOMMENDATIONS:

Agency management should recognize and identify the costs of training in any IT acquisition. Including a training cost component or "bundling" training costs in IT acquisitions should be considered as an option by agency management.

Training Task Force Report

ISSUE #2: STATE EMPLOYEE IT COMPETENCY

Should state agencies adopt IT competency objectives to be achieved over the next five years?

COMMENTS:

Issue 2: State Employee IT Competency

The task force survey indicates that agencies desire to improve the IT competency of their employees. The survey indicates that a significant difference exists between the current and desired levels of competency for employees who do not have the basic computing skills necessary to effectively perform their jobs, the basic skills being those of an introductory or beginning level of knowledge in personal computing, wordprocessing, spreadsheet, and database.

There is a small difference between current and desired competency level for these basic skills in the elementary level which may indicate that agencies feel comfortable with the elementary skill level of employees. There is a greater difference in the level of middle skill competency which may indicate that agencies feel there is a need to improve their already existing elementary skill to an advanced level of competency.

The least difference in the levels of perceived need to train in these basic skills occurs at the high competency level which may indicate that agencies have an adequate number of trained employees at this level.

OPTIONS:

- A. Recommend that agencies plan and state IT competency objectives required for positions as a part of an agency training needs assessment in agency IT plans.

Advantages:

- ➡ IT training receives higher visibility.
- ➡ Staff turnover could be reduced.
- ➡ Long range employee productivity would be improved.
- ➡ Better budgeting.
- ➡ Better planning and use of employee time.
- ➡ Provide information to ISD for better statewide planning.

Training Task Force Report

- ➔ Provides measurement of progress.

Disadvantages:

- ➔ Time factor required by management.
- ➔ Establishing commitments to training could result in failure if results are not attained.
- ➔ More work.

RECOMMENDATIONS:

The following should be considered a consolidated recommendation for adopting IT competency objectives: agency standardization of elementary computing skill requirements; new staff testing for basic computing skills; IT plans should include long term training requirements; and training for existing employees should be tied to performance appraisals.

Training Task Force Report

ISSUE #3: CONTENT & DELIVERY

Should a greater variety of curriculum and delivery methods be provided?

COMMENTS:

Issue 3: Content & Delivery

ISD provides, primarily through a contract with the Helena VoTech, a curriculum that provides training for ISD-supported products. This training includes classroom training and self-study materials. Special classes are conducted by national companies when special expertise is needed. Many agencies are providing IT training for their own employees; this training tends to be more specific and oriented to agency applications.

In terms of having a policy on training, the survey indicated very few agencies have any specific written policy or guideline for IT training; most provide training internally, on an as-needed or as-available basis.

From the survey, when asked to describe any training needs that are currently not met by existing capabilities, a majority of agencies felt there is a need for advanced training for upper level technical support staff and internal training for agency specific applications.

The survey also indicated that agencies seem to have a preference for training that is provided by internal (agency) trainers, followed by ISD provided courses, and then looking outward toward other educational institutions (university, votech, private sector providers).

OPTIONS:

- A. Recommend that ISD expand the content and delivery of training services to include all available technology (i.e., video, satellite and television services).

Advantages:

- Greater accessibility of training to remote areas.
- Costs of delivery would be lower the greater the utilization.

Training Task Force Report

Disadvantages:

- ➡ Funding

- B. Make specialized training programs provided for agencies available to staff in the smaller agencies.

Advantages:

- ➡ Existing resources used.
- ➡ Smaller agencies able to improve technical competence.
- ➡ Cross-agency relationships and appreciation improved.

Disadvantages:

- ➡ Funding

RECOMMENDATIONS:

As a state we need to provide a greater variety of curriculum and delivery methods by making available to the agencies more computer-based training on the state's network, taking advantage of MetNet to deliver training, relying on contractors for specialized application specific training, and making available a state training facility that agencies can use to provide training when needed.

Training Task Force Report

ISSUE #4: AGENCY SUPPORT

If agency support needs are not being met, how can adequate internal technical support be provided for all agencies?

COMMENTS:

Issue 4: Agency Support

Budget constraints have forced agencies to keep support staff to a minimum. Agencies with few FTE generally are not able to justify staff dedicated to technical support at the level of competence necessary. Currently, these agencies get along by using a variety of resources including ISD staff, contractors, or other agency people willing to help out. Sometimes the "cheap" way out results in other problems--implementations that are difficult to support, lack of documentation, and failure to meet standards.

Larger agencies tend to have a higher technical competence, programs and objectives, and methods of funding and providing IT support to staff. These agencies may have been, by nature of their business, relying on technology longer than others or have programs that have had funding available to develop technology. Generally, the smaller agencies have not had the flexibility in funding or staffing to use technology to its fullest.

From the survey, 53% of the responding agencies felt that their technical support needs are currently being met. This would indicate that 47% of the agencies are not able to adequately support their IT activities. It was most often noted in the survey that budget constraints, lack of staff, and training were the major deficiencies.

Agencies typically rely on other resources for technical support; 69% of the responding agencies identified ISD, contractors, and consultants in addition to internal agency support.

From the survey, when asked what an appropriate level of support would be, most agencies responded in terms of the need for additional staff and training.

Training Task Force Report

OPTIONS:

- A. Provide a pool of technical resources centrally that could be drawn on by agencies.

Advantages:

- ➡ Smaller agencies have better support, direction, and systems that are compatible with and comparable to larger agencies.

Disadvantages:

- ➡ Funding.
- ➡ Administration of the resources.

- B. ISD should be the focal point for support and should coordinate support activities for all agencies.

Advantages:

- ➡ Centralized service provider and uniform direction.
- ➡ Better utilization of resources.

Disadvantages:

- ➡ Funding.
- ➡ Standardization of platforms.

RECOMMENDATIONS:

If agency support needs are not being met, adequate internal support could be best provided by assessing internal IT organizations and determining if the current level of support being provided is adequate, establishing a priority of support beginning with 1) internal agency resources, 2) ISD, or 3) other agency or pool of resources from which staff with specific application experience and expertise could be drawn from, and promoting common application, database, and development products to leverage the skill set of IT professionals.

ITAC

Recommendations

*Information Technology Advisory
Council*

July 1994

ITAC Recommendations - Access and Privacy

ISSUE #1: AGGRESSIVE POLICY

Should the state adopt an aggressive policy regarding the use of technology to provide access to services and current and retrospective information?

RECOMMENDATIONS:

The state should adopt an aggressive policy regarding the use of technology to provide access to services and current and retrospective information with appropriate regard for budgetary considerations.

ISSUE #2: COMMUNICATION AND EXCHANGE OF INFORMATION

How actively should the state participate in and use manifestations of the electronic data superhighway?

RECOMMENDATIONS:

The state should actively participate in and use manifestations of the electronic data superhighway.

ISSUE #3: MANDATES

Should laws and policies governing access, privacy, and data sharing be changed or updated to meet needs of the information age?

RECOMMENDATIONS:

In order to provide the greatest access, while guarding individual privacy, the state should review and revise all statutes and policies that might be viewed as impediments to access to state IT resources.

ITAC Recommendations - Access and Privacy

ISSUE #4: INFORMATION TECHNOLOGY IN BUSINESS AND SERVICE DELIVERY

Should the state pursue use of IT as a means for service delivery, including:

- ➔ *coordinated, integrated access from a variety of convenient locations*
- ➔ *use of electronic transactions (EDI, EFT, EBT)?*

RECOMMENDATIONS:

The state should pursue the use of IT as a means for service delivery including:

- ➔ *use of electronic transactions (EDI, EFT, EBT).*
- ➔ *coordinated, integrated access from a variety of convenient locations.*

ISSUE #5: CODE OF FAIR INFORMATION PRACTICES

Should the state adopt a policy regarding fair information practices?

RECOMMENDATIONS:

The state should adopt a policy regarding fair information practices, clearly stating information privacy policies and practices.

ITAC Recommendations - Access and Privacy

ISSUE #6: TRANSMISSION PRIVACY GUIDELINES

Should the state adopt a policy defining state agency personnel responsibilities regarding communications privacy and the access and use of information that might be intercepted in the course of performing IT work?

RECOMMENDATIONS:

The state, through the Department of Administration and cooperating state agencies, should adopt a policy defining state agency personnel responsibilities regarding communications privacy and the access and use of information that might be intercepted in the course of performing IT services.

ISSUE #7: ACCESS CHARGES

Should the state charge for access?

RECOMMENDATIONS:

Develop policy guidelines to establish either free access or access with a service charge. Criteria would include whether the access provided is an inherent part of the general mission of the organization or whether the access is for the private benefit of the person requesting it, along with the degree to which the public and private good involved can be distinguished.

ITAC Recommendations - Access and Privacy

ISSUE #8: USE OF THIRD PARTY PROVIDERS

Should the state use third party information services for access to services? What are the privacy and revenue issues that need to be addressed in using third party providers (to provide access, service, outsourcing, etc.)

RECOMMENDATIONS:

Recognize the important traditional role of third party information and service providers and embrace appropriate, nonexclusive implementations of those relationships in the electronic information age.

ISSUE #9: AVAILABILITY OF SERVICES ON THE PUBLIC NETWORK

Should state government take a proactive stand regarding the deployment of high capacity switched data transport capability on the public switched communications network in Montana?

RECOMMENDATIONS:

State government should take a proactive stand regarding the deployment of high capacity switched data transport capability on the public communications network in Montana.

ITAC Recommendations - Access and Privacy

ISSUE #10: VISION

Should the state adopt a vision that would direct IT planning and development to consider future delivery and/or access for citizens in their homes, businesses, schools, libraries, and organizations?

RECOMMENDATIONS:

The state should adopt a vision that is flexible and responsive to citizen needs and demands--a vision that would guide information technology planning and development to take advantage of current and future service delivery and/or access technologies for citizens in their homes, businesses, schools, libraries, and organizations.

ISSUE #1: NETWORK SHARING

Should the state continue with a shared network concept or allow multiple networks?

RECOMMENDATIONS:

ISD should continue with the current practice of sharing network facilities, with ISD regularly assessing the overall cost effectiveness of providing a shared network for the enterprise.

ISSUE #2: NETWORK PRIVATE SECTOR ACCESS

What private sector access to the State's telecommunications networks should be provided?

RECOMMENDATIONS:

ISD should continue with the current practice of providing private sector access on a case-by-case basis, based on needs identified by agency program managers.

ITAC and ISD should develop a proposal for a design to be presented to the next legislative session to develop greater network capacity to handle increased private sector access.

ITAC Recommendations - Coordination

ISSUE #3: PUBLIC SAFETY RADIO NETWORKS

Should the state study the feasibility of consolidating public safety radio networks which are today managed separately by the Departments of Justice, Transportation, and State Lands?

RECOMMENDATIONS:

The Departments of Justice, Transportation, and State Lands should join with ISD to assess how these state and local systems should evolve to derive maximum benefit from the regulatory and technological changes now underway.

ITAC and ISD should develop a proposal for the design of a consolidated public safety radio network to be presented to the next legislative session.

The Departments of Justice, Transportation, State Lands, other affected agencies, and ISD should solicit the ideas and advice of local government organizations such as MACO and the League of Cities and Towns in order to determine if local agencies should be included in the design.

#4: FOSTERING DATA SHARING BY COORDINATING TECHNOLOGY

How does the state best coordinate technology purchases and designs to enhance data sharing in the enterprise and thereby eliminate potential technological inhibitors?

RECOMMENDATIONS:

ITAC should reaffirm previous ITMG and ITAC efforts, endorsing in concept the importance of coordinating technology, including the concept of data sharing as stated in the Data Sharing Resolution.

ISD should include the Data Sharing Resolution as part of the specifications used in future efforts to establish policies and procedures used to carry out ISD's responsibilities as specified by 2-17-501, MCA.

ISSUE #5: ENTERPRISE DATABASE DIRECTIONS

How should the state proceed with future acquisitions of database software? Should ITAC endorse the enterprise "database directions" recommendation made by ITMG?

RECOMMENDATIONS:

ITAC recommends that the State acquire a single database to be implemented as the enterprise solution in accordance with the following motions passed at the March 3, 1994 meeting:

- ➔ *Acquire an Oracle site license for the database software and that ISD, as part of their rate review, consider how that cost be recovered.*
- ➔ *Acquire a site license for the programming tools and end-user access software from a vendor that is yet to be determined, the vendor to be determined by ISD.*

ISSUE #6: LOCAL AREA NETWORK (LAN) OPERATING SYSTEM DIRECTIONS

Should the state take a coordinated approach to acquiring and providing LAN network operating system services (Novell Netware 4.0)? Should ITAC endorse the enterprise direction for Novell's Netware made by ITMG?

RECOMMENDATIONS:

ITAC recommends that the state acquire a single Netware license to be implemented as the enterprise solution in accordance with the following motions passed at the March 3, 1994 meeting:

- ➔ *Upgrade the existing Netware 3.x standard to Netware 4.x, implementing Netware 4.x as the enterprise network.*
- ➔ *Enter into a master license agreement with Novell.*

ITAC Recommendations - Coordination

ISSUE #7: PERSONAL SERVICES

How should the state acquire personal services used in support of its data processing needs?

RECOMMENDATIONS:

ITAC recommends that a task force be established to:

Clarify the respective responsibilities of the agencies and ISD, including a model definition of appropriate technical support to be obtained by all agencies and a better description of the services provided by ISD.

Make recommendations to the 1997 Legislature on the appropriate means of acquiring IT personal services. Issues that the task force would address include the following:

- *Centralization vs. decentralization*
- *Nature of services acquired (staff size, composition, etc.)*
- *Agency vs. private sector vs. ISD staff*
- *Recruiting, training, compensation, and retention*

ISSUE #8: NETWORK COORDINATION

To what extent should ISD manage the data network, especially those portions of the network that are located within state agencies?

RECOMMENDATIONS:

ISD should coordinate interagency networks (voice, data, video, radio) with active input from agencies, and ITAC when appropriate, on product needs and choices.

ISD should establish a process to resolve disputes regarding management of the network.

ITAC Recommendations - Coordination

ISSUE #9: GOVERNANCE: ITAC AND THE DEPARTMENT OF ADMINISTRATION

How should ITAC be organized to best represent the needs of the agencies and coordinate its activities with the Department of Administration?

RECOMMENDATIONS:

ITAC recommends the:

Continuation of the current practice of relying on ISD for primary support of ITAC activities,

Establishment of a process using ad hoc committees appointed by the Director of the Department of Administration to adjudicate disputes between agencies and/or ISD,

Establishment of issue-specific task forces comprised of ITAC members who would represent ITAC on specific issues, including rate setting, budgetary initiatives and, legislative advocacy,

Establishment of a steering committee comprised of ITAC members who would represent ITAC on strategic IT issues over the term of their membership,

Reaffirmation of the current practice of allowing only senior level agency management to serve on ITAC.

ITAC Recommendations - Coordination

ISSUE #10: GOVERNANCE: ITAC AND ITMG

What is the appropriate relationship between ITAC and ITMG?

RECOMMENDATIONS:

ITAC recommends that a task force be established to formally document the relationship that should exist between ITAC and ITMG and present the proposed policy to ITAC for review and approval. This task force should have the goals of clarifying the relative roles of ITAC and ITMG and ensuring that good communication continues between the two organizations.

ITAC Recommendations - Funding

ISSUE #1: PROPRIETARY FUND

Should the proprietary fund continue to be used as a primary funding source for IT?

RECOMMENDATIONS:

Continue to use the proprietary fund as a primary funding source for IT investment and support with rates developed to provide full asset replacement.

ITAC Recommendations - Funding

ISSUE #2: DATA NETWORK FUNDING (from coordination task force)

Should ISD continue to recover network costs through average cost assessments?

RECOMMENDATIONS:

ITAC recommends that ISD continue with the current methods for recovering the costs of voice and video network costs.

ITAC recommends that ISD adopt a two-tier "telephone system" model for the FY 96-97 biennium with Local Area Network (LAN) costs recovered via an averaged access charge and Wide Area Network (WAN) (out of town or community) costs recovered by a charge back which is based on some usage, capacity, time, and/or distance basis. ISD, ITMG, and ITAC will work together to develop recommendations and a capability to attain this model. In the interim, average cost assessments should be used to recover WAN costs.

ITAC recommends that the cost of access and use by Universities and other entities is recovered through a fee structure designed for those entities.

ISSUE #3: COORDINATION

How might state agencies coordinate, prioritize, and share IT to better use available funding?

RECOMMENDATIONS:

Pursue a coordinated statewide (centralized) infrastructure for IT development and consistency using pooled resources with ITAC continuing to prioritize, submit, and support statewide IT projects.

ITAC should participate more actively in standards for statewide use and give consideration to funding within the proprietary rate structure for site licenses or master license agreements to purchase standard software products.

ISSUE #4: FUNDING INCREASE

How should the State of Montana fund increases in capital investment for IT?

RECOMMENDATIONS:

IT capital investments (above current level replacement assets) with high acquisition cost and long-term life expectancy should be initially financed using debt financing or lease purchase agreements. Repayment should be through adjusted rates paid to the proprietary fund.

ITAC Recommendations - Funding

ISSUE #5: EQUAL ACCESS

Can a funding mechanism be developed to allow equal access and availability to every state agency, without regard to size or funding source?

RECOMMENDATIONS:

Funding mechanisms should be developed to allow equal access and availability of IT to every state employee whose job responsibilities require or would benefit from IT resources, without regard to employing agency size or funding source.

Short-Term:

Change the existing surplus property mandates to facilitate interagency exchange of IT resources, particularly older personal computers.

Develop a central facility with IT resources that could be shared among agencies which individually cannot afford or justify the capital expenditure. Recover the costs of these resources via the proprietary fund mechanism.

Long-Term:

Develop a plan that would allow every agency to achieve a "minimum level" technology by the year 2000. The plan would define a "minimum level" technology for each state government employee whose job responsibilities require or would benefit from IT resources and the cost and proposed funding necessary to achieve the level of IT defined.

ISSUE #6: INFORMATION AND EDUCATION

How do we inform and educate the OBPP, the Legislature, and IT consumers (agencies) about the value of IT and the recommendations in this report and the importance of providing the funding necessary for IT support and development?

RECOMMENDATIONS:

Use all appropriate resources to inform and educate the OBPP, the Legislature and IT consumers (agencies) about the value of IT and the importance of providing the funding necessary for IT support and development.

ITAC Recommendations - Funding

ISSUE #7: BUDGET AND LEGISLATIVE PROCESS

Should IT be recognized as critical to the mission of state government in the budget and legislative process?

RECOMMENDATIONS:

The criticality of IT to the mission of state government should be emphasized by ITAC resolution regarding the following legislative and budget processes:

Recommend formation of a legislative subcommittee responsible for the review of all IT proposals.

ITAC/ITMG development of a state IT infrastructure plan.

ITAC/ITMG review of significant agency requests for IT for consistency with state plan and direction.

ITAC/ITMG development of presentation/analysis standards.

Recommend a one-time system modernization project.

Document successes of previous investments.

ITAC Recommendations - Training

ISSUE #1: TRAINING FUNDING

How should the state fund IT training?

RECOMMENDATIONS:

Agency management should recognize and identify the costs of training in any IT acquisition. Including a training cost component or "bundling" training costs in IT acquisitions should be considered as an option by agency management.

ISSUE #2: STATE EMPLOYEE IT COMPETENCY

Should state agencies adopt IT competency objectives to be achieved over the next five years?

RECOMMENDATIONS:

The following should be considered a consolidated recommendation for adopting IT competency objectives: agency standardization of elementary computing skill requirements; new staff testing for basic computing skills; IT plans should include long term training requirements; and training for existing employees should be tied to performance appraisals.

ITAC Recommendations - Training

ISSUE #3: CONTENT & DELIVERY

Should a greater variety of curriculum and delivery methods be provided?

RECOMMENDATIONS:

As a state we need to provide a greater variety of curriculum and delivery methods by making available to the agencies more computer-based training on the state's network, taking advantage of MetNet to deliver training, relying on contractors for specialized application specific training, and making available a state training facility that agencies can use to provide training when needed.

ISSUE #4: AGENCY SUPPORT

If agency support needs are not being met, how can adequate internal technical support be provided for all agencies?

RECOMMENDATIONS:

If agency support needs are not being met, adequate internal support could be best provided by assessing internal IT organizations and determining if the current level of support being provided is adequate, establishing a priority of support beginning with 1) internal agency resources, 2) ISD, or 3) other agency or pool of resources from which staff with specific application experience and expertise could be drawn from, and promoting common application, database, and development products to leverage the skill set of IT professionals.

Appendices

*Information Technology Advisory
Council*

July 1994



PRIVACY AND ELECTRONIC COMMUNICATION

Systems such as Bulletin Board Systems (BBS) that are open to communications by the public could include an additional warning such as the following warning included on an IBM BBS:

"Pursuant to the Electronic and Communications Privacy Act of 1986, 18 USC 2510 et., seq., [sic] notice is hereby given that there are no facilities provided by this system for sending or receiving private or confidential electronic communications. All messages shall be deemed to be readily accessible to the general public. Do not use this system for any communication which the sender intends only the intended recipient to read! At the very least, the operators of this system can and do review all communications transmitted."

"Any messages that contain profanity, lewd remarks, or are conducive to destruction, piracy, or illegal action, will be purged."

**Privacy and
Electronic
Communication**

DATA SHARING RESOLUTION

The following resolution was adopted by the Data Processing Advisory Council at the November 5, 1992 meeting:

**DATA PROCESSING MANAGERS' GROUP RESOLUTION:
DATA SHARING
AUGUST 12, 1992**

**Data Sharing
Resolution**

WHEREAS, a tremendous amount of electronic data is being maintained by state agencies, and;

WHEREAS, the duplication of electronic data will continue to increase if systems are developed without consideration for the sharing of data with other agencies, and;

WHEREAS, the cost of capturing, processing, and analyzing electronic data can be minimized for the state as a whole if more data sharing takes place between agencies;

NOW, THEREFORE BE IT RESOLVED by the Data Processing Managers' Group that it is a goal of state agencies to share data with other agencies whenever possible, if not prohibited by legal confidentiality requirements. Therefore, during major system development and enhancement projects, all state agencies should consider other agencies' automated systems in their design plans as an alternative to creating redundant data and/or systems within their own agency;

AND, BE IT FURTHER RESOLVED by the Data Processing Managers' Group that agencies should develop systems using software that meets compatibility criteria developed, with agency involvement, by ISD. The criteria should be developed with the purpose of ensuring that agencies acquire and use hardware and software that enable data to be shared among agencies.

ALTERNATIVE FUNDING SOURCES

OPTIONS:

A. Alternative Funding Source: Debt Financing

Description: Funds to pay for investments in IT are borrowed through the sale of bonds and repaid over time. Either general-obligation or revenue bonds may be used. General-obligation bonds are backed by the full faith and credit of the state and repaid with general government revenues, reducing risk to the investor and interest costs. Revenue bonds are backed by and repaid from a specific, dedicated revenue source.

Viability: As a general rule, general-obligation bonds are viable for major projects with a long, useful life. Their viability is limited by restrictions on the state incurring debt, interest and issuance costs, identification of beneficiaries of the project, and the fact that both issuance and debt service costs are a general fund obligation. Revenue bonds may be restricted by project plans and the availability of a dedicated and certain revenue source for repayment.

Appropriate uses: The funding source should be limited to large projects with a long, useful life. Using this general rule, investments in improvements to the state data network will be more appropriately funded using this source than would computer hardware or software.

Statutory or legal constraints: The authority to incur state debt requires either approval by voters or a 2/3rd vote of the legislature. The issuance may also be limited by federal volume cap limitations.

Who should initiate: Use of this funding source requires legislative endorsement, which generally would be considered as a single bill.

Who would collect and administer funds: Once approved, the Department of Administration would likely administer the program, including the issuance of the debt and administering the construction and purchasing of the major infrastructure improvements. However, nothing prevents the bill from providing appropriations to individual agencies or projects if a series of small requests were rolled into one larger package for legislative consideration.

Alternative Funding Sources

Appendix D

Advantages:

- ➔ The cost of projects can be spread over their useful life; making them more affordable than under a pay-as-you-go approach.
- ➔ The project will not have to compete as stringently with other potential current year expenditures than would occur under a pay-as-you-go approach.

Disadvantages:

- ➔ The total cost of the project is increased due to the payment of issuance costs and debt service, although interest costs for general obligation bonds will be lower than those under lease participation or revenue bonds.
- ➔ Current and future general fund monies will be obligated for the payment of interest and debt service costs for general obligation bonds, making fewer funds available for other projects. Revenue bond repayment will require beneficiaries to pay the issuance and debt service costs from their appropriations. Revenue bonds could be repaid using a dedicated revenue source, which may require diversion of existing revenue streams from other uses or a tax/fee increase.
- ➔ The project may have to compete with other debt-financed projects either because of volume cap or debt load limitations or concerns.
- ➔ Authorization to use this financing instrument requires either voter approval or approval by 2/3rds of the legislature. Such a level of support may be difficult to obtain because benefits may not be spread across sufficient legislative districts and resistance among certain legislators about the uses of the funds.

B. Alternative Funding Source: **Lease Purchase**

Description: Essentially a lease purchase agreement is a form of an installment sale. The state and/or agencies would contract with a private investor to provide a certain investment and, upon completion, leases the investment for a specified period of time and may purchase the investment at the end of the contract.

Viability: A lease or lease purchase agreement is a flexible option. It can be available from items ranging from individual PC's to major infrastructure investments. Given this flexibility, it is routinely used across states for a variety of purposes. The only constraint is the availability of private concerns willing to provide the service.

Appropriate uses: The instrument is appropriate for a wide variety of uses ranging from individual pieces of office equipment to major infrastructure improvements.

Statutory or legal constraints: None.

Who should initiate: The use of this option can be decentralized to an agency or unit level. Certain agreements may require central administration. Funds are subject to legislative appropriation.

Who would collect and administer funds: Varies depending on project and its uses.

Advantages:

- ➡ The state can finance projects without affecting debt and related concerns.
- ➡ Leasing can spread the project's cost over its useful life.
- ➡ The use of bond financing can be limited. Lease purchase agreements are free from these limits, while still offering the ability to pay for the project over an extended period of time.
- ➡ The option is flexible and can be applied to a wide variety of projects. The only constraint is private party willingness to make the initial investment.

Disadvantages:

- ➡ Appropriations are still required to pay for the agreement or existing appropriations need be diverted from their intended use.
- ➡ The total cost of a project tends to be higher than that resulting from debt financing because of higher interest rates.
- ➡ Legislators may view lease agreements as attempts to circumvent their decisions/powers.

C. Alternative Funding Source: **Board of Investments**

Viability: Not viable

Appropriate uses: Appropriate for infrastructure or assets which depreciate over a longer term.

Appendix D

Statutory or legal constraints: Hinges on prudent man statute. In other words, the investment must have a rate of return and associated risk comparable to what a prudent investor would expect. The Board has refused loaning money to the state for any reason in the past. The state can get a lower interest rate by selling a tax free debt instrument on the open market. The state, however, has to pay an underwriting fee that runs from \$100,000 to \$150,000 per bond issue.

Who should initiate: Board of Investments would have to support changing the statute along with individual groups associated with the funds being loaned.

Who would collect and administer funds: Board of Investments, assuming the loan was approved.

Advantages:

- ➡ A loan would save the underwriting cost of a bond issue.

Disadvantages:

- ➡ The rate of return on the investment would have to be competitive in the open market and would probably be higher than the tax free government bond. If the state is going to issue debt in a particular year, it makes more sense to piggyback on the same bond issue. You get a lower rate and you also get the advantage of arbitrage.

D. Alternative funding Source: **Private/Public Partnerships**

Description: Public and private entities, including state government and local government, become partners to improve services and business. The partnership provides government with needed improvements and business with improved standing and future economic gains.

Viability: This option is viable and can be used if projects are of a certain nature: 1) new and unique, i.e., the partnership can give the private entity a high profile to enhance public knowledge of a product; 2) offer future payback--the company can reasonably expect that an economic gain will happen in the future due to the partnership.

Appropriate uses: Examples of the uses of this type of funding are:

Info California--partnership of IBM and state of California to develop and install KIOSKS for one-stop shopping on information services; a person new to the state can use this machine to find out how to license their car, get a driver's licenses, register to vote, etc.

Automation of the Idaho Judiciary--partnership of IBM and state judiciary to automate the court system statewide.

US West, Exxon, Montana Power Company, and Billings school district--information highway for students, teachers, parents.

Statutory or legal uses: Depending on the particular project, legal issues would need to be researched on a project-by-project basis.

Who should initiate: The use of this option can be decentralized to an agency or unit. Certain partnerships may require central administration and support. Funds are subject to legislative appropriation.

Who would collect and administer: Administration could occur through the state entity responsible for providing the service or information. Assistance from ISD would probably be invaluable to the success of the partnership, so ISD would probably need to be involved.

Advantages:

- Potential source of funding for investments in new technology.
- Shares the risk and potential success with partners.
- Improved intra-governmental relationships.

Disadvantages:

- Higher risk of failure on projects using new technology or concept.
- Potential of being bound to the partnership (private partner) long term.

E. Alternative Funding Source: **Federal Programs**

Description: Petroleum Violation Escrow (PVE). From \$300,000 to \$1,000,000 may be available for various state projects in the FY96-97 biennium. The majority of overcharge recoveries have already been distributed to the states and other injured entities. In Montana, all previous

Appendix D

distributions and the majority of those anticipated during the current biennium have been appropriated and will be expended. The flow of these funds will dissipate until they are exhausted in the near future. There are several sources of federal funding:

- ➡ DOT - ISTEA
- ➡ Health - EPA
- ➡ New federal resources available (NII/HR2639) - (NTIA - National Telecommunication Information Architecture grant program)
- ➡ Military ("Profiting from the Peace Dividend")

Viability: PVE could be used. Whether it should be used is a question that the OBPP and the legislature will have to address.

Appropriate uses: PVE funds must be used for "energy related" programs that can be shown to benefit persons who were likely to have been injured by oil company violations of federal petroleum price controls. Federal programs, such as the State Energy Conservation Program, the Institutional Conservation Program, the Low Income Weatherization Program, and the Low Income Home Energy Assistance Program are presumed to meet these criteria. Other activities that may fall outside of these programs' guidelines or purposes may be funded using PVE monies. Guidance concerning whether an activity is eligible for PVE funding can be found in the precedents that the U.S. Department of Energy has set in making prior determinations about PVE use. Other states, including South Dakota, have legitimately used PVE funds for activities that are similar to what Montana is presently contemplating. It would appear that funding the development of telecommunications/teleconferencing infrastructures is an acceptable use of these monies. This is a one-time revenue source, not appropriate for long-term, sustained support to infrastructure development.

Statutory or legal constraints: The legal restrictions on the use of PVE funds are contained in the Stripper Well settlement agreement. A copy of the agreement can be obtained from the Department of Natural Resources and Conservation's Energy Division.

Who should initiate: If the Montana Legislature appropriates PVE funds, the Governor is responsible for preparing a plan for the U.S. Department of

Energy's approval that includes this proposed set of activities. The Governor signs an assurance giving his personal guarantee that the State of Montana will only spend PVE funds on eligible programs and activities.

Who would collect and administer: The Department of Administration is already collecting PVE distributions in earmarked accounts and is managing them in conformity to the federal and judicial requirements.

Advantages:

- ➡ PVE is a non-general-fund revenue source.

Disadvantages:

- ➡ PVE cannot provide long-term, sustained support to infrastructure development.

F. Alternative Funding Source: **Coal Severance Trust Fund**

Viability: Not viable at this time

G. Alternative Funding Source: **Science and Technology Alliance**

Viability: Not viable at this time

H. Alternative Funding Source: **Local Government**

I. Alternative Funding Source: **Regulatory Opportunities**

Description: There are a variety of utilities regulated by the state, including water, motor carriers, electricity and gas, telecommunications, and sewers. Special assessments are currently levied on telecommunications users for the 9-1-1 program (\$.25), the hearing impaired (\$.15) and CAL (\$3.50).

Other "regulated" possibilities include gambling, lottery, airlines, and motels (tourism). Options might include coin slots on modems, National APCO 800 numbers for modems, or special fees collected by specific agencies related to information or services requested.

Viability: Although a viable source, as in the 9-1-1 and hearing-impaired programs, it is not a popular alternative to the regulated industry because regulators receive the blame for increased costs. Perhaps this source should

Appendix D

be used if the question "who should pay?" could be decided...either everyone pays or users pay.

Appropriate uses: Those specific to the service or regulated industry.

Statutory or legal constraints: Use of this type of funding would likely require legislative authorization and approval by the regulating entity (i.e., the Public Service Commission). Additional research will be required.

Who would collect and administer: The regulated entity would collect, pass on and distribute the funds. Administration could occur through the state entity responsible for providing the information or service. The administrative function would operate efficiently if centralized for the state such as in ISD currently. The statewide 9-1-1 function is also currently centralized with a separate State Special Revenue (SSR) fund and makes any necessary distribution of funds.

Advantages:

- ➡ Existing entity and system to act as the collecting agent.
- ➡ Collection of funds is centralized.
- ➡ Cost can be widely distributed.
- ➡ Funds are or can be earmarked.
- ➡ Provides a mechanism for a consistent, measurable source of funding.

Disadvantages:

- ➡ Possibility of fraud or non-payment.
- ➡ Collecting entity blamed for increase in fees/costs of doing business.
- ➡ Infusion of capital may be delayed for large projects.
- ➡ Use and cost do not necessarily parallel each other.

J. Alternative Funding Source: **Grant Writer in Department of Administration**

Information Technology Advisory Committee (ITAC) ***Training Task Force: State Agency Survey***

ITAC has identified information technology (IT) training and technical support as priority topics for strategic planning. A task force was formed to formulate strategies for these two goals which are defined as follows:

Training - To take full advantage of current and emerging IT through the provision of adequate training of government personnel and the public.

Technical support - To provide technical support for information technology systems, because they are critical to the delivery of government services.

This survey is being conducted to gather agency information to help develop strategies to meet these goals. After reading the following definitions, please complete the attached survey and return it to Sharon Gorie by January 7, 1993.

Definitions

I. Employee Competency Levels:

- A. None - No knowledge and/or not required
- B. Elementary - Understands concepts and able to use basic functions of software product
- C. Middle - Able to use most advanced capabilities of software product
- D. High - Able to install, maintain, and support the software product; able to problem solve and help other users

II. General Software Product Areas:

- A. Basics of personal computing (security, system management, virus protection, management guidelines, software licensing and copyright protection)

Training Task Force: State Agency Survey

Appendix E

- B. Word processing (Word Perfect)
- C. Communications programs (ZIP!Mail or ZIP!Office, modem accessed bulletin boards and/or electronic network conferencing, mainframe connectivity)
- D. Spreadsheet (Lotus 1-2-3)
- E. Database software (R:Base, dBase, and so forth)
- E. Networks (Novell, networking concepts)
- F. Desktop publishing programs (Aldus Pagemaker, Ventura, and so forth)
- G. Special function packages (Statistical Analysis System (SAS), Lotus Freelance and so forth)
- H. Special State Government function applications (SBAS, P/P/P, TEAMS, SEARCHS, Bill Status)
- I. Mainframe software (JCL, TSO, CICS, IDMS)

ITAC Training Task Force: State Agency Survey

- I. Agency name _____
- II. Name of person completing survey _____
 Telephone number _____
 FAX number _____
- III. A. How many full-time equivalent positions are there in your agency? _____
- B. Please identify the current and desired competency levels by percentages of your agency staff for each of the specified software product areas.

SOFTWARE	NONE		ELEMENTARY		MIDDLE		HIGH	
	Current	Desired	Current	Desired	Current	Desired	Current	Desired
Example:	10%	1%	35%	40%	50%	54%	5%	5%
Basics of personal computing								
Wordprocessing								
Communications								
Spreadsheet								
Database								
Networks								
Desktop Publishing								
Special software								
Special state applications								
Mainframe software								

- IV. Please identify any current agency policy, guideline, or practice regarding the provision of technology training to employees (e.g., performance appraisal, budget dollars per year per employee, hours per year planned per employee, etc). List the item(s) below and if possible, append copies to this survey.
- _____
- _____

- V. How much does your agency currently spend annually on information technology training?
- A. Circle the appropriate term of measure with which your agency will respond, and B. fill in the associated figure in the blank provided.
- A. 1 Dollars (\$)
 2 Hours
 3 Percent (%) of IT budget
 4 Percent (%) of total budget
 5 Other (Please specify): _____
- B. _____

Appendix E

- VI. How is training currently provided for your agency's employees? Consult the list below and circle each service used. Then, consider each of the services listed separately and rank it according to your preference for your agency (1 = most strongly preferred, 2 = very strongly preferred, 3 = strongly preferred, 4 = somewhat preferred, 5 = not at all preferred).

Circle #s used

Rank (1-5)

- | | | |
|----|--|-------|
| 1. | Use of ISD provided courses | _____ |
| 2. | Use of ISD provided self study materials | _____ |
| 3. | Use of internal (agency) trainers | _____ |
| 4. | Use of agency self study materials | _____ |
| 5. | Use of private sector classes | _____ |
| 6. | Use of educational institutions (univ, votech) | _____ |
| 7. | Other (describe below) | _____ |

- VII. Please describe any Information Technology training needs that are currently not met by existing training capabilities.

- VIII. Are your technical support needs currently being met? Yes No

- A. If yes, please identify the success factors, including:

1. What is the size of your technical support staff? _____
2. Do you rely on other resources for technical support (ISD, contractors, consultants)? Yes/No If yes, please identify the resources used:

3. Other. _____

- B. If NO, what are the deficiencies?

- IX. What would an appropriate level of support look like for your agency? (Add extra sheets if necessary.)

DEFINITIONS

Access: The right to enter, approach, or use. In the context of state government IT, it includes appropriate intra- and interagency data sharing, sharing and communication with other levels of government, and public access to IT. Public access may include information outreach, provision of services, response to requests or demands, and required or optional electronic data transfer with vendors, clients, and customers.

Access Anonymity: Assurance that an individual's privacy includes information regarding the individual's use or access to specific information.

Privacy: A condition or quality of keeping information regarding a person withdrawn from public view or knowledge.

Surplus property mandate: 18-6-101 through 102 MCA determine authority, responsibility, and process regarding agency sale or exchange of surplus property. Montana Operations Manual (MOM) Chapter 1-0718.10 defines the specific responsibilities of the Procurement and Printing Division, Property and Supply Bureau and procedures agencies must follow to dispose of surplus property.

Definitions

**State of Montana
Information Services Division/
Information Technology Advisory Council
Strategic Action Plan FY95**

Introduction

As can be seen, the strategic planning process represents a tremendous effort by the State of Montana's information technology community. The recommendations developed by the ITAC task forces will serve as the blueprint for improving the delivery of services to the constituency of Montana.

To make the recommendations of this strategic planning process become a reality, ITAC has created this "action plan" to fulfill the objectives of the task forces. This Strategic Action Plan details the actions and goals for each of the recommendations. In addition, responsible entities are identified as well as expected completion dates.

This Information Technology Strategic Action Plan is a starting point in the implementation phase of this strategic planning process. This action plan is designed to be a living document to be reviewed by ITAC in 1995, and beyond, to measure progress and define new actions and goals.

Introduction

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Access and Privacy	Aggressive Policy	1	ITAC recommends that the state adopt an aggressive policy regarding the use of technology to provide access to services and current and retrospective information with appropriate regard for budgetary considerations.	ITAC to identify, research, and recommend access initiatives.	ITAC	December 1995
Access and Privacy	Communication and Exchange of Information	2	ITAC recommends that the state actively participate in and use manifestations of the electronic data superhighway.	ITAC/ISD to advocate SUMMITNET EPP request.	ITAC/ISD	May 1995
Access and Privacy	Mandates	3	In order to provide the greatest access, while guarding individual privacy, ITAC recommends that the state should review and revise all statutes and policies that might be viewed as impediments to access to state information technology resources.	Review agency access and privacy statutes, policies, and practices and effect change.	ITAC	Ongoing/ December 1995
Access and Privacy	Information Technology in Business and Service Delivery	4	ITAC recommends that the state should pursue use of information technology as a means for service delivery including: Coordinated, integrated access from a variety convenient locations. The use of electronic transactions (EDI, EFT, EBT).	ITAC to identify, research, and recommend access initiatives.	ITAC	In progress
Access and Privacy	Code of Fair Information Practices	5	ITAC recommends that the state should adopt a policy regarding fair information practices, clearly stating information privacy policies and practices.	ITAC to draft a fair information practices policy.	ITAC	July 1995

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Access and Privacy	Transmission Privacy Guidelines	6	ITAC recommends that the state, through the Department of Administration and cooperating state agencies, should adopt a policy defining state agency personnel responsibilities regarding communications privacy and the access and use of information that might be intercepted in the course of performing information technology work.	ISD to draft a policy defining personnel responsibilities regarding communications privacy, access and use of information.	ISD	July 1995
Access and Privacy	Access Charges	7	ITAC recommends that policy guidelines be developed to use in establishing free access or a service charge.	Draft policy guidelines for establishing access charges.	ITAC	July 1995
Access and Privacy	Use of Third Party Providers	8	ITAC recommends that State Agencies recognize the important traditional role of third party information providers and embrace appropriate, nonexclusive implementations of those relationships in the electronic information age.	ITAC to formulate guidelines to ensure appropriate nonexclusive implementations.	ITAC	July 1995
Access and Privacy	Availability of Services on the Public Network	9	ITAC recommends that State government should take a proactive stand regarding the deployment of high capacity switched data transport capability on the public communications network in Montana.	Communicate with communications services providers and the PSC the state's interest in use of this facility.	ISD	Ongoing

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
------------------------	--------------	----------------	-----------------------	---------------------	--------------------------------	------------------------

Access and Privacy	Vision	10	ITAC recommends that the state should adopt a vision that is flexible and responsive to citizen needs and demands; a vision that would guide information technology planning and development to take advantage of current and future service delivery and/or access technologies for citizens in their homes, businesses, schools, libraries, and organizations.	Communicate this vision in the formal strategic planning report and biennial report.	ISD	December 1994
--------------------	--------	----	--	--	-----	---------------

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Coordination	Network Sharing	1	ITAC recommends that ISD continue with the current practice of sharing network facilities, with ISD regularly assessing the overall cost effectiveness of providing a shared network for the enterprise.	Ongoing.	ISD	N/A
Coordination	Network Private Sector Access	2	ITAC recommends that: ISD continue with the current practice of providing private sector access on a case-by-case basis, based on needs identified by agency program managers. ITAC and ISD develop a proposal for a design to be presented to the next legislative session to develop greater network capacity to handle increased private sector access.	Ongoing.	ISD	N/A
Coordination	Public Safety Radio Networks	3	ITAC recommends that: The Departments of Justice, Transportation and State Lands join with ISD to assess how Montana should evolve these State and local systems to derive maximum benefit from the regulatory and technological changes now underway.	Develop the "SummitNet Data Network Expansion" EPP proposal for the upcoming FY96/97 biennium which would provide for greatly expanded network capacity, including significant additions to the peer-to-peer (TCP/IP) network and Internet. The additional locations that would be provided by the SummitNet expansion would provide for increase private sector access. Develop the "Public Safety Radio System Design" EPP proposal for the upcoming FY96/97 biennium which would provide for the design of a consolidated public safety radio network.	ISD	Current/ June 1997 Complete

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
-----------------	-------	---------	----------------	--------------	-------------------------	-----------------

			ITAC and ISD develop a proposal for a design of a consolidated public safety radio network to be presented to the next legislative session.			
			The Departments of Justice, Transportation, State Lands, other affected agencies and ISD solicit the ideas and advice of local government organizations such as MACO and the League of Cities and Towns in order to determine if local agencies should be included in the design.	Develop plans to establish a task force comprised of the Departments' of Justice, Transportation, State Lands, and other affected agencies as soon as the proposal is approved by OBPP. The task force would also include representation from a wide variety of affected local government organizations.	ISD	Current/ June 1997
Coordination	Fostering Data Sharing by Coordinating Technology	4	ITAC recommends that: The State reaffirms previous ITMG and ITAC efforts, endorsing in concept the importance of coordinating technology, including the concept of data sharing as stated in the Data Sharing Resolution (see Appendix A - Data Sharing Resolution).			
			ISD include the Data Sharing Resolution as part of the specifications used in future efforts to establish policies and procedures used to carry out ISD's responsibilities as specified by 2-17-501, MCA.	Include the Data Sharing Resolution as part of future policies and procedures it provides to agencies with respect to ISD's responsibilities for the State's acquisition of hardware, software and information technology consulting services.	ISD	September 1994

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Coordination	Enterprise Database Directions	5	<p>ITAC recommends that the State acquire a single database to be implemented as the enterprise solution in accordance with the following motions passed at the March 3, 1994 meeting:</p> <p>Acquire an Oracle site license for the database software and that ISD, as part of their rate review, consider how that cost be recovered.</p> <p>Acquire a site license for the programming tools and end-user access software from a vendor that is yet to be determined, the vendor to be determined by ISD.</p>	<p>Enter into a contract with Oracle to provide the Oracle database management system (DBMS) to all State agencies, including the University System.</p> <p>Begin an analysis of programming tools and end-user access software with representatives from the ITMG.</p>	ISD	Completed
Coordination	Local Area Network (Lan) Operating System Directions	6	<p>ITAC recommends that the State acquire a single Network license to be implemented as the enterprise solution in accordance with the following motions passed at the March 3, 1994 meeting:</p> <p>Upgrade the existing Network 3.x standard to Network 4.x, implementing Network 4.x as the enterprise network.</p> <p>Enter into a master license agreement with Novell.</p>	<p>Upgrade the Network standard to 4.x and continue the process of working with individual agencies to convert to the new standard. The total conversion of all agencies will take place over the next several years.</p> <p>Enter into a contract with Novell, Inc. to provide a site license for Network to all State agencies.</p>	ISD/ITMG	Current/ June 1997
					ISD	Completed

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Coordination	Personnel Support Services	7	<p>ITAC recommends that a task force be established to:</p> <p>Clarify the respective responsibilities of the agencies and ISD, including a model definition of appropriate technical support to be obtained by all agencies and a better description of the services provided by ISD.</p> <p>Make recommendations to the 1997 Legislature on the appropriate means of acquiring data processing personal services.</p> <p>Issues that the task force would address include:</p> <p>Centralization vs. decentralization</p> <p>Nature of services acquired (staff size, composition, etc.)</p> <p>Agency vs. private sector vs. ISD staff</p> <p>Recruiting, training, compensation and retention</p>	Establish a task force to address recommendations.	ITAC	July 1995
Coordination	Network Coordination	8	<p>ITAC recommends that:</p> <p>ISD coordinate interagency networks (voice, data, video, radio) with active input from agencies, and ITAC when appropriate, on product needs and choices.</p>	Ongoing.	ISD	N/A
			ISD establish a process to resolve disputes regarding management of the network.	Establish process and review with ITAC.	ISD	January 1995

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
------------------------	--------------	----------------	-----------------------	---------------------	--------------------------------	------------------------

Coordination	Governance: ITAC and the Department of Administration	9	ITAC recommends that: ITAC continue with the current practice of relying on ISD for primary support of ITAC activities,	Ongoing.	ITAC/ISD	N/A
			ITAC establish a process of using ad hoc committees appointed by the Director of the Department of Administration to adjudicate disputes between agencies and/or ISD,	Ongoing.	ITAC	N/A
			ITAC establish issue specific task forces comprised of ITAC members who would represent ITAC on specific issues, including rate setting, budgetary initiatives and legislative advocacy,	Ongoing.	ITAC	N/A
			ITAC establish a steering committee comprised of ITAC members who would represent ITAC on strategic IT issues over the term of their membership,	Establish steering committee.	ITAC	January 1995
			ITAC reaffirm the current practice of allowing only senior level agency management to serve on ITAC.	No further action.	ITAC	N/A

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
------------------------	--------------	----------------	-----------------------	---------------------	--------------------------------	------------------------

Coordination	Governance: ITAC and ITMG	10	ITAC recommends that a task force be established to formally document the relationship that should exist between ITAC and ITMG and present the proposed policy to ITAC for review and approval. This task force should have the goals of clarifying the relative roles of ITAC and ITMG and ensuring that good communications continues between the two organizations.	Establish a task force to address recommendations.	ITAC	January 1995
--------------	------------------------------	----	--	--	------	--------------

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
------------------------	--------------	----------------	-----------------------	---------------------	--------------------------------	------------------------

Funding	Proprietary Fund	1	ITAC recommends to continue use of the proprietary fund as a primary funding source for Information Technology investment and support with rates developed to provide full asset replacement.	Ongoing.	ISD	N/A
Funding	Data Network Funding	2	ITAC recommends that ISD continue with the current methods for recovering the costs of voice and video network costs. ITAC recommends that ISD adopt a two tier "telephone system" model for the FY 96-97 biennium with Local Area costs recovered via an averaged access charge and wide area (out of town or community) costs recovered by a charge back which is based on some usage, capacity, time, and/or distance basis. ISD, ITMG and ITAC will work together to develop recommendations and a capability to attain this model. In the interim, average cost assessments should be used to recover wide area costs. ITAC recommends that the cost of access and use by universities and other entities is recovered through a fee structure designed for those entities.	Ongoing.	ISD	N/A
				ITAC, ITMG, and ISD develop recommendations to attain model.	ITAC/ ITMG/ISD	October 1994 - December 1995

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Funding	Coordination	3	ITAC recommends the pursuit of a coordinated statewide (centralized) infrastructure for IT development and consistency using pooled resources with ITAC continuing to prioritize, submit, and support statewide IT projects. ITAC should participate more actively in standards for statewide use and give consideration to funding within the proprietary rate structure for site licenses or master license agreements to purchase standard software products.	Ongoing ITAC education/information on upcoming technical issues. Solicit ITAC participation in standards development, and obtain their concurrence before implementation of any standard that requires state agency compliance. Formulate a plan for unified agency support in 1995 session.	ITAC/ ISD	N/A
Funding	Funding Increase	4	ITAC recommends that Information Technology capital investments (above current level replacement assets) with high acquisition cost and long term life expectancy should be initially financed using debt financing or lease purchase agreements. Repayment should be through adjusted rates paid to the proprietary fund.	Ongoing development of rate structures that reflect reasonable debt financing and lease purchase for FY96-97 biennium.	ISD	N/A

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Funding	Equal Access	5	<p>ITAC recommends that funding mechanisms should be developed to allow equal access and availability of information technology to every state employee whose job responsibilities require or would benefit from IT resources, without regard to employing agency size or funding source.</p> <p><u>Short-term.</u> Change the existing surplus property mandates to facilitate interagency exchange of information technology resources, in particular, older personal computers.</p> <p><u>Long-Term.</u> Develop a plan that would allow every agency to achieve a "minimum level" technology by the year 2000. The plan would define a "minimum level" technology for each state government employee whose job responsibilities require or would benefit from IT resources and would identify cost and proposed funding necessary to achieve the level of IT defined.</p>	<p>Make recommendations to Department of Administration Surplus Property Program to change existing mandates.</p> <p>ISD, ITMG, to develop and implement a plan for achievement of "minimum level" technology.</p>	<p>ISD/ITAC</p> <p>ISD/ITAC</p>	<p>September 1994</p> <p>March 1996</p>
Funding	Information and Education	6	ITAC recommends use of all appropriate resources to inform and educate OBPP, Legislature and IT consumers (agencies) about the value of IT and the importance of providing the funding necessary for IT support and development.	ITAC and ISD to develop a plan informing and educating the 1995 Legislative Session.	ITAC/ ISD	September 1994 - May 1995

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
Funding	Budget and Legislative Process	7	The criticality of Information Technology to the mission of state government should be emphasized by ITAC resolution regarding the following legislative and budget processes: Recommend formation of a legislative subcommittee responsible for the review of all Information Technology proposals.	Recommend to committee on committees.	ISD/ITAC	Completed May 1994
			ITAC/ITMG development of a State Information Technology Infrastructure Plan.	Develop plan.	ITAC/ITMG	March 1996
			ITAC/ITMG review of significant agency requests for IT for consistency with State Plan and direction.	Ongoing.	ITAC/ITMG	N/A
			ITAC/ITMG development of presentation/analysis standards.	Develop standard.	ITAC/ITMG	March 1996
			Recommend a one-time System Modernization Project.	Develop one-time System Project	ITAC/ISD/ITMG	March 1996
			Document successes of previous investments.	Ongoing.	ITAC/ISD/ITMG	N/A

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
------------------------	--------------	----------------	-----------------------	---------------------	--------------------------------	------------------------

Training	Training Funding	1	ITAC recommends that Agency management should recognize and identify the costs of training in any IT acquisition. Including a training cost component or "bundling" training costs in IT acquisitions should be considered as an option by agency management.	Ongoing. Recognition of the cost of training in new projects.	Agency Management/ITAC/ISD/ITMG	N/A
Training	State Employee IT Competency	2	ITAC recommends that the following should be considered a consolidated recommendation for adopting IT competency objectives: agency standardization of elementary computing skill requirements; new staff testing for basic computing skills; DP plans should include long term training requirements; training for existing employees should be tied to performance appraisals.	Establish an ITMG training committee to develop IT training standards and program.	ITMG/ISD	September 1994 - September 1995
Training	Content and Delivery	3	ITAC recommends that as a state we need to provide a greater variety of curriculum and delivery methods by making available to the agencies more computer based training on the State's network; taking advantage of MetNet to deliver training; relying on contractors for specialized application specific training; making available a state training facility that agencies can use to provide training when needed.	Ongoing management of contract(s) with computer training vendor (currently provided by Helena College of Technology of the University of Montana).	ISD	N/A

Task Force Name	Issue	Issue #	Recommendation	Action/Goals	Responsible Entity(ies)	Completion Date
------------------------	--------------	----------------	-----------------------	---------------------	--------------------------------	------------------------

Training	Agency Support	4	ITAC recommends that if agency support needs are not being met, adequate internal support could be best provided by: assessing internal IT organizations and determining if the current level of support being provided is adequate; establishing a priority of support beginning with 1) internal agency resources 2) ISD 3) or other agency or pool of resources from which staff with specific application experience and expertise could be drawn from; and promoting common application, database, and development products.	Ongoing.	ISD/ITAC/ Individual Agencies	N/A
----------	----------------	---	---	----------	----------------------------------	-----

1,000 copies of this public document were published at an estimated cost of \$5.50 per copy, for a total cost of \$5,500.00, which includes \$5,500.00 for printing and \$.00 for distribution.